Apple2000

THE NATIONAL APPLE USERS GROUP

OCTOBER 1990 VOLUME 5(5)

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* For upgrade prices for the Republic of Ireland call Dublin (01) 767 814.

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Apple2000
The All Apple
User Group
Committed to
All Apple Users
including Macintosh

Apple2000

October 1990

Apple2000
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Apple2000 supports users of all the Apple computers. The **ITT 2020, I, II, II+, //e, //c, //c+, IIgs, IIgs+, ///, Lisa, XL, Mac 128, 512 MacPlus, SE, SE/30, Mac II, IIcx, IIci, IIx, IIfx** and **Portable** Contributions and articles for the magazine are always welcome. We can handle any disk size or format. Please send to the PO Box, L21 8PY.

NOTE:
In general the front half of the magazine is for the Apple II, Apple IIgs and Apple /// The back half for the Macintosh and Lisa. Look out for the descriptive page icons.

Key:

Apple II, //e and //c

Apple ///

Apple IIgs

Macintosh, Lisa

Macintosh II

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AppleLink: BASUG.1

There are a number of ways to contact Apple2000

If you wish to order goods or services from Apple2000 or just leave us a message, call Irene on [illegible] (Ansafone during the day). Alternatively you can Fax. your order to [illegible] or write to the PO Box. If you use comms you can leave orders on TABBS addressed to the SYSOP or contact us on AppleLink (BASUG.1).

If you are experiencing problems with Apple hardware or software Dave Ward and Tony Dart run the Hotlines and will try and help you.

We are very interested in the activities of local user groups, and if you have any information which you would like publicised John Lee would like to hear from you.

We reserve the right to publish, without prejudice, any advice or comments given to members as a result of letters received, in the journals of Apple2000.

A little praise for a few of our authors wouldn't go amiss. Send all comments, and contributions, via the PO box, especially suggestions about what you would like to see in **your** magazine.

Chairman's Corner

Apple2000 1980-1990

Happy Birthday!

An important milestone will be reached shortly after you receive this magazine. Apple2000 neé BASUG (British Apple Systems User Group) will be ten years old. Pre-dating Apple UK, the Macintosh and every Apple computer since the II+, we have been continuously serving the UK and European Apple community as a self-help group of volunteers.

It was ten years ago that a group of Apple enthusiasts met in a store in the Tottenham Court Road and decided to meet on a regular basis. From these small seeds, Apple2000 has grown and flourished into the largest UK Apple User Group.

We are planning a special souvenir to mark the occasion. Watch for details in the December issue of Apple2000.

What next?

As we have all come to know so well, Apple keep their secrets very close to their collective chests.

The launch of the Mac portable was widely expected, but it was not till the actual launch day itself that Apple would admit it existed.

At the time of writing it is widely expected that a new low cost Macintosh will arrive by mid October. Apple will say nothing of course, but they have been getting very excited about telling all and sundry to turn up to the various presentations that will be made from mid October onwards. They will not say what they will be presenting just that we shall all be very interested!

The list of expectations is endless. A low cost black and white Mac (the Classic?), a low-cost colour Mac, System 7.0, a new IIgs, a IIgs emulator for the Mac and much more. System 7.0 seems to have been fraught with problems, and its delay, like that of HyperCard 2.0, has been put back far beyond the original launch date. A new IIgs is a dream many of us would like realised. We shall just have to wait and see what appears.

The Force RIP

Back in April 1985, Telecom Gold was a new and fresh idea. We all had hopes that E-Mail would become the communication system of the future.

With a magnificent effort by Richard Boyd and Tony Game, we negotiated one of the very first closed user groups on Gold. This pre-dated MicroLink and provide full access to Gold facilities at a much reduced cost.

At first many of you flocked to join this new system of sending messages and Telex. In time we added a user friendly menu structure to the Force. Gold had said it could not be done, but we managed to do it! In time the menu structure was copied by Gold itself!

However Telecom became a public company, they lost interest in developing this new system. Competition from American systems, from our own Bulletin Board, and with the increased costs and explosive growth of the Fax machine, saw many of you move to easier and more productive systems.

The falling membership of the Force started to take its toll. A critical point has now been passed and the committee feel we can no longer subsidise the Force any longer. Outstanding debts from members' accounts are just too high. We have to pay Telecom all charges made and then we try and recover these debts from you the members.

As from the beginning of November, the Force will cease to exist. Existing members accounts will be transferred to Telecom at the same level of charges that you now pay. New members will have to join at the full BT rate. The fate of the Force menu structure has not been decided at the time of writing.

We shall be writing individually to all Force members telling them of the changes. If you have not heard from us by the time you read this, contact BT on 0800-200700 as an Apple2000 Force member, and ask for a registration form for the new service.

Meanwhile for the rest of you, long live TABBS, APPLELINK and CIS.

Mac User Show

We shall be appearing in person at the Mac User show. Make sure you pay us a visit before you go and look at the new Macintosh machine. Apple did not appear last year for many reasons, but are expected to be there in full force this year.

New Membership Fees

For those of you who attended the AGM you will remember that we asked you for a mandate to increase the membership fee by £5 later this year. This was to take into account rising costs of postage and printing. We shall be increasing the fee for all new memberships taken out from the 1st of November. Existing memberships due before or in January may rejoin in advance at the old fee of £25. Watch for your renewal notice and rejoin early for this saving.

Ewen Wannop

Annual subscription rates are £25.00 for UK residents, £30.00 for E.E.C. residents and £35.00 for other overseas members.

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This issue was prepared using Aldus PageMaker™ 3.0 and 4.0, MicroSoft Word™ and Claris MacWrite™.

The Editorial team is:

Apple II	Macintosh
Ewen Wannop	Norah Arnold
Elizabeth Littlewood	Irene Flaxman

Many thanks to all those who work behind the scenes and who receive no personal credit. These people are the stalwarts of Apple2000.

Additional thanks to Walter Lewis of Old Roan Press (051-227-4818) for our printing service, and to Ian Sharp of Sharp Studios (051-227-2788) for our cover design.

Apple2000 are Founder Members and Wholehearted Supporters of the **Apple User Group Council**

Letter Box

Binningen
Switzerland
20th August 90

Letraset UK's upgrade policy from RSG to DesignStudio

Dear Sir,

When Letraset first offered me the "opportunity" to upgrade from RSG to DesignStudio for £495 I thought they had made a mistake. However, their marketing manager tried to explain to me that it was all worth it. I was not convinced. When I saw the letter to the editor (MacWorld US) of Letraset US explaining that registered US RSG users were offered the opportunity to upgrade for $100 !!! I was not amused and wrote another letter to Letraset UK asking for an explanation. I have just received their answer. A photocopied circular letter making a "generous" upgrade offer for £300 + VAT !!

Do they really think UK users are all suckers and don't know what goes on elsewhere? We are used to being overcharged for so-called UK software versions with little or no support, but this is ridiculous! Mail order houses in the US are selling the full product for about $450!

I have been a convinced user of RSG since version 2 and have recommended it to many of my friends against the advice of my dealer who preferred PageMaker. I have also standardised all Mac's in my office on RSG. However, I shall no longer want to deal with a company that treats its loyal customers with such utter contempt.

Walter E Haefliger

❑ *From MacWorld (US) August 1990*

DesignStudio Upgrade Path

In your May issue you said the upgrade path from ReadySetGo to Design Studio was $100 ("Picking a Publishing Program"). This was actually a special time limited offer for registered ReadySetGo users. The current upgrade policy for registered users who purchased ReadySetGo between February 1 and March 31, 1990, is $295, while those who bought ReadySetGo before February 1 may upgrade to DesignStudio for $150.

Michelle Blank
Letraset US

❑ *To Letraset UK*

London, 6th August 1990
Mr. David Skepper
Marketing Manager
Letraset UK
Graphic Design Software
195-203 Waterloo Road
***London** SE1 8XJ*

Upgrade from R.S.G. to Design Studio and other matters

Dear Mr. Skepper,

I am sending this letter by registered mail as my last letter does not seem to have been received by you. I am reverting to my letter of 9th December 1989 and your reply of 2nd January 1990 as well as my further letter of 24th January 1990 (wrongly dated 1989) to which I received neither a reply nor the requested upgrade. As I have been travelling quite a lot in the last few months it was only when I read the enclosed article in MacWorld (USA) about upgrading from RSG to Design Studio that I suddenly realised that I had never received the **requested upgrade nor an answer to** my above letter. I am enclosing copies of all **the** correspondence with you to make it easier for you. As you will see, I complained about the outrageously high price of the upgrade. £495.- for an upgrade I felt was rather steep!

I was therefore intrigued to read in MacWorld that our American friends were allowed to upgrade for US$100.-, quite a difference wouldn't you say! And even for people who did not upgrade then the price today is only $150.- for the upgrade.

I assume that registered U.K. users of RSG Ver. 4.5a were also informed of a similarly favourable upgrade policy (obviously after more people complained) and that through some oversight I was not informed. As you yourself confirmed already in your letter of 5th December 1989 that I have been a registered user for a long time I assume that there should be no difficulty in sending me the upgrade I requested in my letter of 24th January 1990 but at **the much more reasonable price of the equivalent of US$100.- or thereabouts.**

I am looking forward to hearing from you by return of mail.

Yours sincerely,
Walter E. Haefliger

❑ *Photocopied reply from Letraset UK*

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London SE1 8XJ
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Telex 917233
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July 1990

Dear Ready Set Go User,

We have had a lot of favourable press coverage since we launched DesignStudio this year. Consequently we have had many enquiries from Ready Set Go! Users for a "painless" route to up-grade RSG to DesignStudio. Therefore, we have made it as easy as possible for all UK registered users of the RSG to migrate to DesignStudio.

Just write to us quoting your registration number and send a photocopy of your master disk with a cheque, made out to Letraset UK, for £300 plus VAT (£345) to LINDA BULL.

We will then Fedex you a complete package of DesignStudio and you may still keep your copy of RSG.

Using DesignStudio will give you more creative freedom on the desktop! You will be able to rotate text and graphics in specified one degree increments; put text and graphics in different shapes and even use the polygon to create your own shapes.

Moving circles, lines and other graphics around your page will be a easy using the group and ungroup commands.

Yet, even with all these new features you will still feel comfortable as the menu and tools will be familiar to you. Many of our Users say up-grading to DesignStudio is so much easier because they do not have to re-learn a totally new package. There is never enough time ... is there?

This up-grade offer is available to all UK registered users of Ready Set Go until the end of October 1990. You will be eligible for future up-grades and free technical support on our "hotline" as usual.

yours sincerely
Lesley Gray
UK Manager (Graphic Design Software)
ESSELTE
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Registered in England and Wales No. 627602

Please submit all letters and articles to the magazine on disk wherever possible. The disks will be returned to you when the magazine is published. If you have a modem, send us letters, articles and Public Domain programs either to BSG005 or to TABBS [illegible].

Bideford,
Devon

Dear Ewen.

You might be interested in the following information on the program **"Desk"**, recently issued by Zedcor Inc.

"Desk", which was originally called **"DeskWorks"** until it was found that the name was an unintentional infringement of a registered trademark, is a multiple program for the Mac comprising seven integrated sections:-

DeskCalc. A Spreadsheet and Charting program.

DeskCom. A Telecommunications program.

DeskDraw. An Object-oriented Drawing program.

DeskFile. A Database program.

DeskSecretary. A Personal Secretary program.

DeskWrite. A Word Processing program.

"Desk" is issued on three 3.5 inch disks with two very comprehensive manuals of some 400 pages each, a Reference Manual containing details of all the Commands and their use, and a Tutorial Manual with examples and exercises. The program requires a Mac with a hard disk and one megabyte minimum (two Mb if you're going to use Colour Graphics). All the programs are claimed to be compatible with each other, and with programs such as PageMaker and of course their own ZBasic. So far as I have been able to test, the claim seems justified.

Disk 1 is the Installation Disk and there is a comprehensive manual on installing the program. It's a pity that this installation program doesn't work - or at least it didn't in my case - and after a couple of days of frustration, I reverted to the standard Mac installation proceedure. Even that took another couple of days of intermittent labour, no doubt due to my lack of expertise, and I still haven't manage to load the Spelling Dictionary, part of the Word Processing program.

The Word Processing program doubles up as a quite comprehensive Desk Top Printing program with Text Wrap facilities around inserts, and the Draw and Paint programs allow one to rotate text in one degree increments, shrink, expand and distort text and pictures. It's quite adequate to enable me to produce and print a small club magazine. There are some infuriating bugs I have discovered, mostly associated with the elaborate tabbing facility.

The Telecoms program has its own phone book and one can send and receive files in the background whilest the Mac does other things, even without Multifinder. The dialling menu has a nasty bug, in that when asked to dial a stored number from the phone book, the program dials, establishes communication and chalks up one call, immediately hangs up and redials, establishes communication and chalks up a second call, immediately hangs up and re-dials and so on ad nauseum. The only way round the problem that I have found is to drag down the "Stop Dialling" menu whilest the program is dialling out but to hold the mouse button down until the modem tones indicate that communication has been established. You have to be quick on the draw.

When one has learnt how to circumvent the several bugs and ideosyncracies of Desk, it's a program which suits my requirements admirably, and at far less than one tenth of the total price of separate commercially available programs giving the functions covered by Desk, it's a gift. Support is supposed to be available from Zedcor by telephone but I'm not prepared to pack out the wallets of BT's shareholders by trying to clear the bugs over the transatlantic phone. Support by Air Mail is non-existent and Zedcor haven't yet come into the 20th century with an E.Mailbox.

John Stanier FACI

Selby
North Yorkshire

Dear Elizabeth & Ewen,

Graham Doubtfires letter to Apple 2000 published in the August issue persuades me to write of my experiences and pleasures with my 'Second User' //e. It was most interesting to read of his endeavours, and if my tale can also help other Apple II travellers then we will both have done well.

I came late to computing after a compulsory early retirement at 60 years old. One year later, after the usual long holidays, the house repainted and the garden under control, I found myself halfway up the wall and my wife halfway out the door. A usual story I grant you but one that has to be experienced to be believed. But help was at hand, for my supportive family saw the smoke signals leaking through the roof tiles and took appropriate damping action. The family Mafioso met, decided, and in walked Son-in-law Number two with an offer I could not refuse. Now I am an Apple Junkie and my wife a computer widow.

My original basic setup came from a business situation which was upgrading? to Amstrads (would you believe?). Within the year they had moved on again, due, I understand, to servicing

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```
>>>>> TABBS TOP MENU <<<<<

<#>Endcall <.>Utilities
<;>Time <G>oodbye

<1> Apple ][ folder
<2> Apple IIgs folder
<3> Macintosh folder
<4> Apple2000 folder
<5> Developers folder
<6> Public areas

<D>ownload Libraries
<M>ailbox
<N>ews Columns
<A>dvertisment Hoarding
<S>hopping Mall
<W>hat's new on TABBS
<H>elp files for TABBS
```

Ring **TABBS** on [redacted] at any speed through V21, V22, V23 to V22bis 8N1
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problems. My trusty Apple soldiers on as before.

I now possess an unenhanced //e with an Apple 64k 80 col card in slot 3, Duodisk in slot 6, Super Serial card and ImageWriter I in Slot 1. A Z80 card for CP/M 2.23 in slot 4, and a 10.5Meg Symbiotic hard drive (DOS 3.3, Pascal, CP/M) in slot 5. Eric Sausse provided some of this equipment and has also been a great help in explaining those sometimes stupidly simple things that completely fox the beginner. His prices are helpful too.

Apart from the basic DOS & PRODOS system discs and a copy program that arrived with the computer I had very little idea of which way to go, but an advertisement in the local paper soon solved that problem, with a good Samaritan in the City of York virtually showering me with old Apple II discs and even more importantly books and magazines. I trust he still enjoys his Mackintosh as much as I the Apple II. So, if you are starting to explore the Apple, get that three line advert in the local paper right away.

Almost even more important than a program is the manual, as an example I would quote my experience of finding a AppleWriter //e disk (no manual), with an AppleWriter II manual coming from another source a couple of months later. With the help screens on the // e and the still relevant parts of the Apple II Manual many happy hours were spent creating my own guide to AppleWriter.

Apple 2000, both Magazine and library are my mainspring, one issue gives me enough thought to last until the next with a further boost when Apple Slices pops through the door. Ewen Wannop took the trouble to write a helpful letter to me over a small detail on my Apple 2000 introductory disc that I queried. Dave Ward on help line put me on to Eric Sausse for hard drive info. Thank you all.

The advertisers in Apple 2000 have also been useful to me, I am writing this letter with the P.D. program FredWriter purchased from Computability at Southampton. This is a nice, simple educational wordprocessing program created in America, not nearly so powerful as AppleWriter or AppleWorks, but then again I don't need Mailmerge & etc. Chameleon at Pinchbeck re-inked my ImageWriter ribbons with what must have been a 'same day" turnaround.

Once again, by looking and asking the good things happen. I never pass a computer shop of any kind without looking in and asking if they have any Apple II software or hardware. Nine times out of ten the poor blind fools behind the counter look on you with pity and reply with an air of superiority that they only have the latest equipment in their shop. Smile sweetly at them and journey on. Odds and ends came my way and at the beginning of this year it really paid off. On my tenth call I picked up my hard drive for £45 complete with a superseded commercial Database program, CP/M and card. I read the manuals that came with my find, took a little advice, and after a couple of false starts divided the drive into the three formats available. Loading in some suitable programs I soon experienced the pleasure of the almost instant loading of a program or program overlay when called.

Those are some of the good times, there has not been many bad times that I remember except when I wiped my favourite graphics disks. Don't ask me how I managed that - after all the program only did what I told it to do, but I felt bad for a week after. Serves me right for trying to improve! an already excellent program. After this one of my family stood a card on the top of the monitor with the legend 'APPROACH THIS COMPUTER WITH BRAIN IN GEAR AND FOREFINGER IN NEUTRAL'.

And what of the future? I would like to enhance my //e, it would also be nice to run ProDOS on my hard drive and be able to call my collection of ProDOS programs with the touch of a finger. I'm getting there, it will take time, but the pleasure of travelling the Apple II road is great. I can understand the business users of computers needing more and more K's and faster running CPU's but my trusty old 8 bit is still a heck of a sight faster than I am. Happy Appleing.

Eric Leadbeatter

Great Sankey
Warrington

Justified Decimal Number Input

Dear Ed,

This letter is on paper because my Macintosh is down and I am far from home. Hence this routine is in GWBASIC, as is the WP which I wrote for typing the odd letter. The object of this routine is to enter a decimal-justified number directly into its cell. Writers of spreadsheets or databases may purloin this routine if they wish. Obviously you cannot use INPUT as you must intercept every keypress. Nor can you use PRINT USING as this requires the number to be already in memory.

SP$=SPACE$(10) AC is the horizontal position of the cell, DN its vertical position, X the horizontal position of the decimal point, L is the length of the number, I the position of the decimal in the number, 8 the offset that determines where to print the number as it currently stands during input.

```
505 NU$="": L=0: I=7: X=AC+8: S=0
    'Initialises
510 LOCATE DN,X,1,0,7 'turns the
    cursor on at full height
520 I$=INKEY$: IF I$="" THEN 520
    'GWB stores INKEY$
525 IF I$=CHR$(13) OR I$=CHR$(10)
    THEN 570 'NEWLINE is CHR$(3)
    on the Mac
527 IF I$=CHR$(8) THEN 700 'I
    nearly forgot about deleting
530 IF I$="." THEN I=L+1: GOTO
    540
532 IF (L=5) AND (I=7) THEN 520
    'Mustapha Decimal
535 IF I$<"0" OR I$>"9" THEN 520
    'Mustapha Number
540 NUM$=NUM$+I$: L=L+1: 8=L: IF
    I<7 THEN S=I-1
545 LOCATE DN,X-S: PRINT NUM$;
550 IF L<I+2 THEN 520 'There may
    be more to come
570 IF I=7 THEN NUM$=NUM$+".00"
575 IF I=L THEN NUM$=NUM$+"00"
580 IF I=L-1 THEN NUM$=NUM$+"0"
585 LOCATE DN,X-6: PRINT NUM$; '
    Turns cursor off
590 NUM=VAL(NUM$) 'Now do what
    you want with NUM then return
    to main menu
700 LOCATE DN,X-6: L=L+(L>0):
    NUM$=LEFT$(NUM$,L)
705 PRINT SPACE$(L+1);: IF I>L
    THEN S=L: I=7
710 LOCATE DN,X-S: PRINT NUM$;:
    GOTO 520
```

NB. Not a single horrid time-wasting GOSUB

The above routine ensures that any number you enter is correctly justified as you enter it. The parameters set in this fragment are for two decimal places and a maximum length of eight characters.

Yours sincerely

Bill Pearce

Haslemere
Surrey

Dear Irene

An update you might think useful to help other ICE hard disk users. You may recall that I wrote on 26 June listing some printing problems I had with the ICE and AppleWorks and the following could help others.

The printing problem is tied into the mounting of volumes on the ICE disk. The disk unit must have volumes mounted in pairs and after assigning slot 7 to volumes 1 and 2 I assigned slot 1 to volumes 3 and 4. This was the printing problem! So the lesson is if you want to mount more than 2 volumes on the ICE disk, mount the third and forth volume on an unused slot. (Owners of the ICE disk will understand this lot!)

I now have to figure out a way of stopping AppleWorks sending a mass of control codes to the printer every time I print anything as it keeps "switching off' the print set-up I set on the printer control panel.

Another tale for those who might need to know. My son blew the house fuses in the middle of me saving a spreadsheet to disk! A quick repair put the fuse to rights but trying to get back my programs almost made me poke son's fingers in the plug by way of retribution!

I could get into volumes 2,3 and 4 but not vol. 1 my main volume holding all programs and the data directory. Fortunately I had Glen Bredon's ProSel in one of the other volumes and when I tried to 'catalog' vol 1 or even switch prefixes to it the message 'directory structure damaged' (or something like this) came up.

I tried to restore from my latest backup but of course as the main root directory was damaged nothing would work. I then entered a utility called "Block Warden" on ProSel and went to block 0002 where some recognisable files should have been seen. Garbage. Block 0003 was OK however and I could read various files which I knew were on the root directory.

I then loaded the backup disk and examined block 0002 and tried to compare the scrambled one on my hard disk with the backup. Nothing similar at all, so on the basis that I didn't think I could more damage than was there already (oh the pleasures of ignorance!) I copied block 0002 from the backup to the hard disk.

Bingo. I could at least get back into my first hard volume and all the programs were there although the data files were of course out of date.

I then copied file by file every single file off vol 1 onto floppies as certain programs still either dumped me in the monitor or gave me 'directory structure damaged' responses. I deleted volume 1 and even unmounted it to ensure all directory information was lost then remounted the volume and laboriously copied every file back onto the hard disk. Over 27 floppies worth!

It all works fine now but the above took about a week to figure what to do and how to do it. Thanks to Dave Ward and Eric Sausse who both gave invaluable advice. I pass this on to other ICE users in the hope that it might assist if something similar happens to them.

Lastly, although I have no real desire to know the quirks of the ICE disk, through necessity I have had to learn a fair bit about the system and if anybody is stuck with a problem I'll be pleased to see if I can make a suggestion or two.

Regards

Graham G Doubtfire

South Croydon,
Surrey.

Dear Apple 2000

I have four queries that I would like some help with please.

(1) Having upgraded my Apple //e with the enhanced ROM chips, I am looking to upgrade my 80-col text card to the extended version. Is it possible to buy a memory chip which I could install on my existing 80-col card or must I buy a completely new card.

(2) When I received my Apple Xtras disks last month, I subscribed at the end of July. I unpacked and ran the wordsearch program. I found that there is a 'syntax error' in line 2462, as I am not too familiar yet with ProDOS Basic, I am not sure what is wrong could you help me with this.

(3) I would like to use the APA of of the DOS Toolkit (Dos 3.3) with ProDOS programming, is there a patch that will make it work under ProDOS.

(4) Has anybody there had experience with the adventure game Perils of Princess Emiline off of the APPLE USER GAMES DISK vol 2. If so can you offer me any advice as to how to get passed the guard in the tower.

Richard Shipley

❑ (1) It may be possible to upgrade your existing 80 col card depending on which card you have. There are quite a few cards around, made both by Apple and other sources. Memory is normally added as 8 chips, one for each bit of the data bus, so a single chip is not sufficient. If you have 8 spare sockets on your card, it will be expandable using 8 x 64k RAM chips. If there are no empty sockets then I am afraid you will need to get a new card.

❑ (2) WordSearch is quite a complex program and shows what can be done with an AppleSoft Basic program and machine code calls. I have examined line 2462 and found the problem. Somewhere or other a 'z' has crept in where a ':' should be. The correct line 2462 of file SEARCH.EDIT should read:

```
2462 VTAB V1: POKE OC,H1: &
     LINE,32,45: RETURN
```

By the way, AppleSoft Basic is built in to every Apple II computer, and it can be accessed from both DOS 3.3 and ProDOS. It is not specific to either disk operating system, though some of the disk commands that are additional to AppleSoft are specific to each operating system. This will only cause a problem where programs are transported from the one environment to the other.

❑ (3) Which leads to your third question. Unfortunately the DOS 3.3 Toolkit programs are precisely what they say, they are only for DOS 3.3. They just will not work under ProDOS when copied into the ProDOS environment. Many calls are made to DOS vectors that just do not exist within ProDOS.

I am not sure which of the APA commands you are most interested in, but if you create a text file from your Basic program you can always edit the file with a word processor and then EXEC it back into Basic when you are finished. This will allow you to enter lower case and other forbidden characters into the Basic listing, and of course use the Find and Replace commands to change line numbers.

❑ (4) This is a new game to me, so I throw it open to other members for their comments.

The Boffin

Hallbankfield
Corbridge

Dear Ewen,

Thank you for answering my query about the 800k drives and the UDC card. Indeed, the UDC card turned out to be faulty and MGA replaced it under warranty.

A question here perhaps should be for the Boffin. This concerns AppleWorks 2.0 and entering printer codes. I am trying to add an emphasise print on and off control codes which are ESC E and ESC F - these I can get to work from AppleSoft Basic, but not AppleWorks. I have gone through the AppleWorks Specify Information about Printers, Change Printer Specifications, Printer Codes, Boldface, Underlining, Superscript. Under Boldface begin I have entered the codes by pressing Escape key, letter E and ^ to end the entry. Under Boldface end I have entered the codes by pressing Escape key and letter F and the ^ to end the entry, then Escaped back to my document. I have enclosed the boldface begin and end options, but when I print it those features don't work! It just prints in "normal" 10cpi mode. I have also tried setting this up under custom printer but it is still the same. Am I doing something wrong?

Finally a slight complaint. I purchased some PD disks from you, disks D118 and D123, only to find that they are exactly the same in content as those I acquired from Computability. Computability sell their disks at £1.50 (including VAT P&P) and Apple2000 £4.00 (including VAT P&P).

Just to save further unwanted "duplication", are all of Computability's disks in Apple2000 library? (I know Computability only sell DOS/ProDOS software).

What differences exist in purchasing a disk from Apple2000 or Computability? (I know Computability require a donation to be sent to program author).

David Beale

❑ I have asked Dave Ward to comment on your printing problem.
He replies:

"It would appear that you are doing everything correctly. So try the following suggestions:-

1] Try a fresh AppleWorks diskette.

2] Try it with another version if possible.

3] Try defining boldface start as ESC and boldface end as blank!! Then for the real boldface start, you guessed it, use boldface start followed by E and then boldface end. For the real boldface end use boldface start followed by F and then boldface end!! See if this works. If not use the same idea but use, say, underline code instead of E. If none of these work then there may be a problem with AppleWorks."

Dave Ward

❑ Some of the disks in the Apple2000 and Computability's libraries will indeed be duplicated. Most of the PD software comes from the States, and the sources are limited. We list the Catalogs of all our disks and so you should be able to see if there is duplication if you already have a Computability disk. I see however that Computability do not list the Catalogs so you cannot check the other way round. Many of our disks have been assembled by us and so will not be duplicated, but not all of them by any means. There are of course other sources of PD disks, mainly from US User Groups, so the nightmare can be even greater.

Apple2000 also require you to pay any ShareWare fees due to the authors concerned, this is a standard requirement of using any ShareWare software.

As to pricing policy, you will have seen that we have recently reduced the price of our 5.25 disks to £3.50. This reflects the reduced price of the media these days. However, when you add together the cost of the media, the cost of a disk mailer, the postage (which has just gone up by the way!) and all the other costs involved, it costs rather more than £1.50 to supply you with a library disk. We can only assume that Computability is running at a loss.

A small margin of profit is made on each disk sold by Apple2000. This goes towards the various overheads involved in running a library. We have to store masters of library disks, purchase new software either directly or from online services and cover many other costs concerned with running the library. Apple2000 provides you with many free services such as the Hotline, bi-monthly magazine, Apple Slices etc. The membership fee does not cover the full cost of all of these services, and so the small profit on the various items sold help us run the group and break even. I hope you will continue to buy from our library and help us maintain a high quality of service.

Ewen Wannop

Green Vale
London

Dear Ewen,

I am concerned that Boffin's response to your correspondent David Beale (Aug.'90 A2000, page 5) may possibly mislead. Original Macintosh 800k (& 400k) drives work well with the][e using the UDC (Universal Disk Controller card). As my article in the Aug.'88 A2000 (page 30) shows, this card emulates protocol converter (smartport) calls to some degree, since I was able to use these to program a soft eject feature.

External smartport devices don't all work with the card, as Boffin infers. An important case in point is the Chinook CT20c hard disk drive. This works with the 3.5 version][c or the protocol converter (3.5 Unidisk controller card) in a][c. It takes an appropriate place in the daisy chain in lieu of a 3.5 inch Unidisk. The UDC won't drive it at all, even though daisy chain unit one calls are directed to drive one, and unit two calls to drive two.

Advertisements I have seen suggest that the][gs 'external drive' works with the UDC too, but I have no personal experience of this as I do not own a 3.5in 'Platinum' drive.

Bryn Jones

Fulready Road
London

Dear Ewen,

This month's Apple 2000 seems a lot more interesting. Compuserve I.D.'s Mine is 73457,3614. My Gold number is 74:MIK956 .

Sorting routines (page 33): I now use a binary chop sort, so called because it divides the list in two. It goes like this.

For a list of N strings W$(N):

```
40   D=1
50   D=D*2
60 IF D<=N THEN GOTO 50
70   D=INT((D-1)/2)
75   IF D=0 THEN GOTO 220
80 FOR I=1 TO N-D
90   J=I
100  L=J+D
110  IF W$(L)< W$(J)  THEN GOTO
     130
120  GOTO 200
130 T$=W$(J):W$(J)=W$(L):W$(L)=T$
140  J=J-D
150  IF J>0 THEN GOTO 100
200  NEXT I
210  GOTO 70
```

I am currently trying out a "logarithmic" searching routine - for finding a name in a database -and can't make it print out more than one occurrence of the name. Any thoughts on this?

p.7- Printer smudging: I have long since given up trying to print on envelopes, although my Epson does it perfectly well. I use continuous paper for everything and use vertical tabulation to print the address at the bottom of a page where it is visible inside a window envelope. It saves work.

Case history (p.3) Hard disks and ProDOS. I have a Symbiotic disc, now for sale (see August small ads). Its ProDOS version is 1.1 and the makers recommended that I substitute this version of ProDOS for the later versions on programs such as Gazelle and AppleWorks (not that I use AppleWorks very much - it is overrated). The newer version of ProDOS can be installed as a separate task. As to AppleWorks 3 printing, I take it that you have "added" your printer when setting up AppleWorks?

Finally, I shall send Ewen from time to time copies of the Apple Library Users Group newsletter where he might find an occasional snippet of interest.

Arthur Robinson

Wendover
Bucks

Dear Editor,

In the August issue (Hotline), Dave Ward gave an Applesoft sort routine, briefly mentioned Quicksort and invited further contributions. To my mind the definitive Applesoft sort (see listing) was published in an article in Windfall/Apple User some years ago (since when, as the old soap advertisement used to say, I have used no other). Unfortunately I have lost the copy and am unable to give the author a proper and due citation. The routine is a version of Professor Hoare's Quicksort but uses a stack - ST(1,N) - for recursive purposes.

Four points:

1. The second dimension of ST() has a non-linear relationship with the size of the array(s) to be sorted. The algorithm for its calculation I have also lost, but since the value of 20 gives almost an over-kill for any array which could feasibly be sorted in a 64K Apple, I have never bothered with its calculation and always used 20 regardless. More mathematically minded readers (or the original author) may be able to supply the algorithm for the benefit of the finicky.

2. The start and finish (BEGIN/FINISH) of the sort array must be set before using the sub-routine. BEGIN is normally 0 or 1 and FINISH the top (but you may wish to sort a section only).

3. The swaps are in line 22. In the particular example, real array D() is sorted via a temporary variable T and the second array L() is similarly sorted into the order of D(). The arrays may be integer, real or string or a combination of any.

4. The sub-routine has here been located as near to the start of the program as possible. Applesoft deals with GOTOs/GOSUBs by each time starting at the first line and galloping up each instruction to the destination line. Any intensively repetitive subroutine such as a sort will therefore have a significant speed advantage if these journeys are kept short (see Applesoft manual).

Richard Brown

Applesoft sort listing:

```
1       DIM STACK(1,20)
        : GOTO 100
10      HOME
        : VTAB 10
        : HTAB 15
        : FLASH
        : PRINT " SORTING "
        : NORMAL
12      B = 1
        :LO = BEGIN
        :HI = FINISH
14      JL = LO
        :KH = HI
        :P = D(((JL + KH) / 2))
16      IF JL > KH THEN 26
```

```
18      IF D(KH) >P THEN KH = KH-1
        : GOTO 18
20      IF D(JL) <P THEN JL = JL+1
        : GOTO 20
22      IF JL <= KH THEN T = D(JL)
        :D(JL) = D(KH)
        :D(KH) = T
        :T = L(JL)
        :L(JL) = L(KH)
        :L(KH) = T
        :JL = JL + 1
        :KH = KH -1
24      GOTO 16
26      B = B + 1
        :ST(0,B) = HI
        :ST(1,B) = JL
        :HI = KH
        : IF LO < HI THEN GOSUB 14
28      LO = ST(1,B)
        :HI = ST(0,B)
        :B = B - 1
        : IF LO < HI THEN GOSUB 14
30      RETURN
100     REM MAIN PROGRAM
```

Catton Estate
Norwich

Dear Sir,

I have a query about connecting a Microline µ82A printer to an Apple //e. I have an Apple printer card and a Super Serial Card are they compatible etc.?

I also need to know where I might buy the cables and cards if need be, and also do you have any information relating to the printer concerned.

T Wright

❑ There are two kinds of interface cards, serial cards and parallel cards. The former are generally used for modem communications ports, but are increasingly being used now for printers like the ImageWriter. The parallel card is more usually used by printers, and was almost the only type of card used by the older printers like your Microline printer. The Apple printer card is one of those.

You will find that most parallel printers use the 36 way Centronics type of connector and that most cards will use a 20 way IDC connector. A ribbon cable normally connects the two. Precisely which combination you have will decide the cable you need. You could try your local dealer, but also try Eric Sausse (0724 855795) who holds a stock of cards and manuals that might be of help.

The Boffin

Altens Industrial Estate
Aberdeen

Dear Sir,

Can you recommend an internal fan for my IIgs that does not cause interference to my stereo card?

P Marsh

❑ You should not be getting any interference from a normal fan running from the 12v power supply, and you should be wary of adding any capacitors as smoothing to the supply. Of course if the fan is too near the stereo card it could cause induced noise into the audio circuits of the board. Have you tried moving the card to another slot?

Cirtech supply an excellent low noise (audible sound!) fan that might be better than the one you have. Apart from that solution, you would need to take the more expensive answer of an external fan that does not use the internal power supply.

The Cirtech fan is available either direct or from most dealers.

As you have found, it is well worth fitting a fan to a IIgs to keep the insides cool. If you have many cards, and especially if you have a TransWarp fitted, it is essential to keep the IIgs cool to avoid random problems through overheating. Make sure none of your cards mask or stop the air flow.

Editor

Compuserve®

❑ We asked you to send us your Compuserve/Forum ID's. We now have two more to add to our collection and these are printed below. There are still some of you that have not responded. We cannot contact you online unless we know who you are. Please send us your ID's either to the Apple2000 ID 76004,3333 or to the PO Box in Liverpool or of course to the Sysop of TABBS.

Apple2000	76004,3333
Mateen Greenaway	100016,602
Bryn Jones	71307,1457
Peter Kemp	100016,1172
Elizabeth Littlewood	100016,401
Mark O'Neill	100016,476
Jeremy Quinn	100016,560
John Richey	10006,1037
Russell Ridout	72007,211
Arthur Robinson	73457,3614
Andreas Wennborg	100012,342
Ewen Wannop	76224,211

AppleLink™

❑ Many of you will already be members of AppleLink™ and others may be thinking of joining. For simple E-Mail it cannot be beaten. It will also keep you up to the minute with what is happening at Apple headquarters. We would like you to send us your contact ID's to add to this list.

Apple2000	BASUG.1
Herts User Group	NA.HERTSUG
Liverpool Group	LIVERPOOL.UG

Hotline News

For those who have had Apple computers for many years a problem with their machines not booting properly may occur on the odd occasion; this could, of course, be serious but is usually very simply remedied. If this should happen each time you boot-up your machine even after leaving it off for a minute or so, don't worry, try the following:-

1) Switch off the machine and anything attached to it.
2) Remove the lid of the machine.
3) Remove and immediately replace each card in the machine; I usually earth myself whilst carrying out any such operation.
4) Check that you've done everything correctly then replace the lid and switch on: magically it should work properly!

This problem can occur on all Apple //computers, even the Apple //c which has not slots. One such problem occurred where the machine, which was second-hand, worked for months and then simply refused to boot. In this case a memory card specially designed for the Apple //c had been installed after removing it and replacing the machine worked perfectly!

Another point to watch for is the power connector from the power supply. This has also been known to cause problems through blackening of the contacts due to arcing through poor contact. The screen may well flicker as a warning that this is happening. On a IIgs, random 3.5 disk write problems were traced back to a loose power connector.

Dave Ward

CORRECTION

❑ On page 17 of the August 1990 issue of Apple2000, the last paragraph of the New Stick Bears Talking Alphabet review was truncated. Our apologies go to Dave Ferris.

The correct wording is as follows:

"This is an excellent program that I have enjoyed playing with as much as my daughter. It's only problem is the difference between English English and American English. For instance 'Z' is pronounced zee and aeroplane is spelt airplane, but I think we can live with these minor details. What I would like to see now is a talking version of Stickybear Numbers".

Apple-pie Order

Rules of Engagement

The first correct entry drawn from the postbag wins first prize. Please remember to indicate which of the two prize choices you would like.

Only entries from current members of Apple2000 will be eligible.

No member of the committee or the editorial team may enter.

Our decision will be final.

Only entries received in the PO box in Liverpool before the 30th of November will be deemed eligible.

How to Contact You

Name: .....

Membership Number: .....

Address: .....

.....

.....

Post your completed entry to:

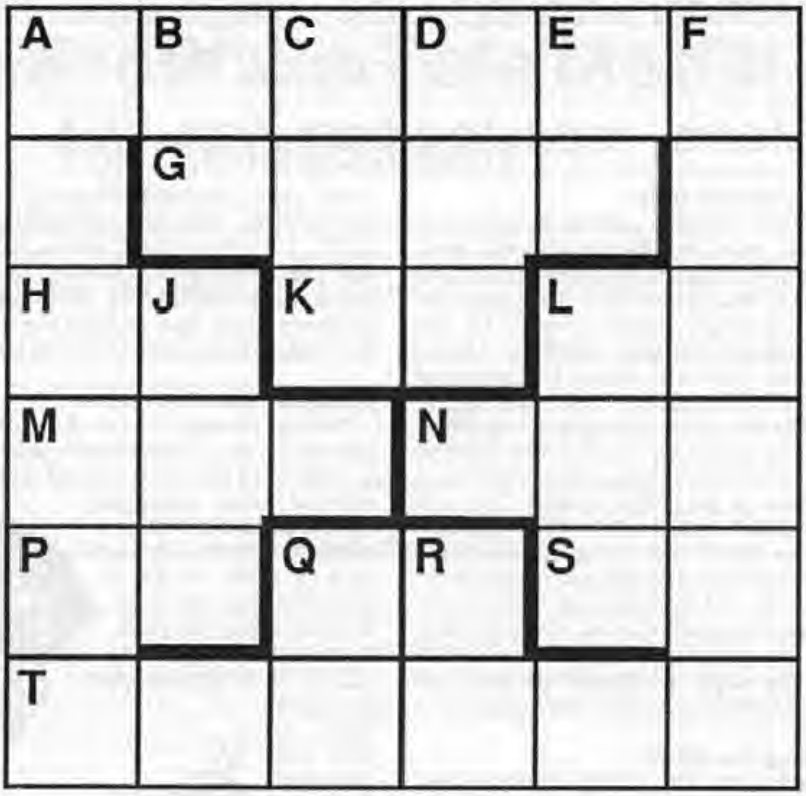
October Competition,
PO Box 3,
Liverpool,
L21 8PY.

Choose Your Prize

If you were to win first prize, please indicate which prize you would like. Chessmaster 2100 for the IIgs or the new Weltris super action game for the Macintosh.
Please tick your choice:

☐ Chessmaster 2100

☐ Weltris



PRIME CUP by Doodlewit

CLUES ACROSS

A = $(k + g)^3$
G(reversed) = $g^2 + d^2$
H = f ¥ p
K = b + d
L = n ¥ m
M = $p^2 + k^2$
N = $p^2 + 1^2$
P = i + d
Q = g
S = a ¥ i
T = $(i + j)^3$

CLUES DOWN

A = $(p + m)^3$
B = k + j
C = $(p + b)^2$
D = $p^2 + c^2$
E = b
F = $(k + h)^3$
J = $(p + i)^2$
L = $i^2 + c^2$
Q = n ¥ k
R = e

Apple2000 prize competition

Disk Zaps and all that (part 2)

Tinkering with the Disk - Ewen Wannop continues his series on Disk Operating Systems - reprinted from April 1986

The DOS 3.3 Disk

In last month's article, I explained how to use Disk Manager. I will now launch you into the forbidden sectors of the DOS 3.3 disc. But first there are two important things to say. All the addresses I will give will be in Hexadecimal, that is to a base 16, counting from $0 through $F, the dollar sign is standardly used by Apple to signify a value in HEX. You will notice that in most computer numerology, the first number is $00, this means that the sixteenth number will be $0F. This off-by-one effect, can cause innumerable confusions and bugs in your programs if you do not understand it. Secondly before you go any further, copy the disc you are going to work on, and ONLY use the copy. I will not be held responsible for any fatal mistakes ....

Setting the Hi-Bit

I mention the 'hi-bit' quite often. Printable ASCII values run from $20 to $7F. The Apple tends to use these with the hi-bit, bit 7 set, thus running from $A0 to $FF. Sometimes however it has it off and they run from $00 to $7F. Simply use them from the appropriate range as and when they are referred to.

Sector Range

The DOS 3.3 disc, although it has $23 times $10 or $230 sectors, only $1F0 are available normally to you as the user. Tracks $00-$02 are used by the DOS image itself, and track $11 is used for the Catalog track and other information such as a disc map. A hint here, you will find that although DOS marks the disc as using all of Track $02, in fact it only uses Sectors $00 through $04. This means that $11 sectors are not used, and wasted. You can put secret messages on these if you like.

However, although these $04 tracks are not immediately accessible to you from Basic or from DOS itself, we can do some interesting things using Disk Manager if we fiddle about with them. So here we go, boot up Disk Manager, and put your working copy in the drive, select the Disc Patch option, and away we go ...

How many times have you wished you could auto-boot into your favourite program, instead of having to end up in Basic, and do a BRUN or an EXEC. Help is at hand. We have to do two things however, change the boot name from HELLO to the required program name, and change the type of file that DOS is looking for on boot.

Changing the Boot name

First we change the name, to do this we read in Track $01 Sector $09, and at offset +$75, you should see the current boot filename. This is in ASCII with the hi-bit set. If you do not have a table of ASCII into HEX, you will have to work it out yourself, start with capital 'A' as HEX $C1. You must put in spaces, $A0, to pad over any characters left from the previous name. The maximum length is thirty characters long. Now write the changed sector back to disc, and read in Track $00 Sector $0D. At offset +$42 you will find the value of $06 for a normal DOS disc. Change this to one of the following, and write the sector back to disc. Use $06 for Applesoft boot files, $34 for Binary files and $14 for EXEC files. That's all you need to do, and away you go.

DOS Commands

While we are in the DOS tracks, take a look at Track $01 Sectors $07, $08 and $09. You will see lots of the disc messages and commands that DOS uses. Provided you do not make the length of these entries greater than they are, you can rename to your hearts content. Why not 'SHOW.ME' instead of 'CATALOG'? Note that in the commands, you cannot have a space in the name. The ASCII is put in with the hi-bit off except for the last character which has it set. This means that we can put in shorter names, ending with the last character having the hi-bit set. You can fool your friends thoroughly this way, and yourself, if you forget what you have changed them to! Now read in Track $02 Sector $02, and look at the bytes $AF through $BA, notice that they spell ' EMULOV KSID'. Look familiar? Well it is 'DISK VOLUME ' backwards, so we can change to 'FRED'S DISK ' or any message you want provided that it fits twelve characters. You should have a space at the end, as the volume number is printed by DOS after this string. Remember to put it all in backwards, all of this string has the hi-bit set.

The Catalog Tracks

Finally, this month, let us look at the Catalog tracks. Read in Track $11 Sector $0F. This is the first sector of the Catalog, the Catalog runs for the next fourteen sectors down to Sector $01. You will see the filenames listed there, and lots of other numbers. Don't try to alter these other numbers yet, but change the filenames if you want. They are thirty bytes long from the first character, and should end in spaces, $A0, to fill if needed. The hi-bit is set here. You can be clever and put in lower case characters, or even put in inverse characters, or even cursor commands. Try it and see, if it doesn't work, make a new copy of the disc, and try again. To make inverse characters, set the ASCII running from $00 to $1F with capital 'A' being $01. Flashing ones run through $40 to $5F with capital 'A' being $41. Cursor commands are, $8A as line feed, $88 as backspace. This is how the funny Catalog's you may have seen on some discs, are done.

Final Word

Next edition I will tell you how to look at files, and restore a Catalog that has been destroyed.

And for those who still cannot think in Hexadecimal, this might help:

$0 = 0	$8 = 8
$1 = 1	$9 = 9
$2 = 2	$A = 10
$3 = 3	$B = 11
$4 = 4	$C = 12
$5 = 5	$D = 13
$6 = 6	$E = 14
$7 = 7	$F = 15

Ewen Wannop

BIDMUTHIN

NEW PRODUCTS

New Products This Month

for the Macintosh

Applied Engineering - the world's leading manufacturers of Apple II peripherals (and for whom Bidmuthin are proud to be UK agents) have now produced some new peripherals for the Macintosh.

1) **High Density 3.5" External Drive** features the same 1.44 Mb drive mechanism as the Apple SuperDrive. Price is just £295.

2) **QuadraLink** - for those with a Macintosh with only two serial ports, (i.e. everyone), and who want more this is the answer. A NuBus Slot Card for the Mac II Series which gives 4 serial ports in the same mini 8 connectors as the current two ports. Price on this useful addition is £249.

3) **Enhancements to the Macintosh Modems** - The internal datalink modem for the Mac II Series a 2400 baud modem costing £249, can now be supplied with a "Send Fax" option installed. Cost with the "Send Fax" option installed is just £349. And allows faxes to be sent to any Group 3 fax machine in the world direct from your Mac.

4) Also available is the **DataLink for the Mac Portable** which includes the "Send Fax" option and costs just £259.

5) Also on the subject of the portable - from the giants of the memory expansion world of the Apple II comes a giant **Memory expansion for the Mac Portable**. No longer are you limited to a measly 2 Meg on the Mac Portable, but AE have just announced a new card which can hold up to 8, yes 8, Megabytes of static RAM. This increases the Mac Portable's capacity up to 9 Megabytes.

Prices - the full extra 8 Megs will cost you somewhere in the region of £2000 but a realistic 2 Megabyte upgrade is £695. A 4 Megabyte upgrade is £1195.

Call for details.

Bidmuthin Technologies Ltd.

Brent House
214 Kenton Road
Harrow Middx
HA3 8BT

Tel: 081-907-8516
Fax: 081-907-2756

AppleXtras

/XTRAS.P8.NO.5/

```
=SHK3.DOCS.TXT    TXT      44   5-APR-90
=SHRINKIT         SYS      81   3-MAY-90
=SHRINKIT.SYSTEM  SYS       1  31-MAR-89
=PATCHER15.SHK    $E0      41  22-JUL-90
=ADDRSBK41.SHK    $E0      27  12-SEP-90
=OTHELLO.SHK      $E0      73  12-SEP-90
```

/XTRAS.GS.NO.5/

```
=PRODOS           SYS      32   8-JUL-88
=BOOT.SYSTEM      SYS       1   6-JAN-90
=TITLE            $C1      65  12-SEP-90
=PROGRAMS         DIR       1  12-SEP-90
   =GSHK103.SHK      $E0     214   1-AUG-90
   =FINDER.PATCH     DIR       1  12-SEP-90
      =FINDER.PIC       $C1      65  27-MAY-90
      =FINDERPATCHER2   $B3     245  27-MAY-90
   =DESK.ACCS        DIR       1  12-SEP-90
      =BASERR.BXY       $E0      56  14-JUL-90
      =RUNQ.V1.31.SHK   $E0      82  11-AUG-90
      =BASIC.CDA.SHK    $E0       6   8-AUG-90
=GAMES            DIR       1  12-SEP-90
   =SENVO2.BXY       TXT     276   6-AUG-90
=GRAPHICS         DIR       1  12-SEP-90
   =VIEW.SHK         $E0      13   5-AUG-90
   =PICS32A.SHK      $E0     174  14-AUG-90
   =PICS32B.SHK      $E0     176  14-AUG-90
   =PICS32C.SHK      $E0     166  14-AUG-90
```

❑ At the time of writing there has been no feedback from members about the issue of Xtras No. 4 and so I presume that all the teething problems of the Xtras System have now been overcome.

I shall continue to use 'shrunk' files as a means of getting more onto the Xtras disks. The Shrinkit/NuFx archive protocol has continued to be developed by Andy Nicholas and the GS Shrinkit has modified the protocols to allow for the resource forks now being found on IIgs programs. As those who download programs from TABBS have found, some of these newer files will not unpack with the //e or II+ Shrinkit. Included on the Xtras P8 disk No. 5 is the latest version of the //e Shrinkit program. This will unpack these newer files. It will not however unpack files having resource forks, but then these are of no use to a //e owner any way.

The P8 disk also includes the latest 'official' bug patching program for AppleWorks 3.0 to come from the authors Beagle Bros. This they say will be the last patch, as all known bugs have now been cured. It is up to Claris to support the program from now on, and any further problems that may arise.

Users of AppleWorks 3.0 TimeOut modules will be interested to know that A2-Central have just started a TimeOut-Central bi-monthly disk subscription. This 3.5-disk-based publication will be published every other month and will include the latest news, tips and tricks for AppleWorks and TimeOut. Actual examples and files will of course be included on the disks. Cost of 6 issues (1 year) is $42, 12 issues (2 years) $81 and 18 issues (3 years) is $117. Costs include world-wide air-mail delivery.

Check with the advertisement on Page 13 of this issue for the A2-Central address.

/XTRAS.P8.NO.5/

All the files on this disk must be unpacked with ShrinkIt from Xtras.P8.No.1 or Xtras P8.No.5

SH3.DOCS.TXT
Text file explaining how to use the Shrinkit files and NuFx system.

SHRINKIT
Shrinkit version 3.0.2 which allows type 3 NuFx files to be unpacked. It will not unpack any files containing resource forks however as these files are specific to the IIgs.
This version of Shrinkit is for the //e, the //c and the IIgs only.
You may run SHRINKIT directly from a program selector like ProSel or by running the file ...

SHRINKIT.SYSTEM
Boot file that will run SHRINKIT from ProDOS on boot or from Basic.

PATCHER15.SHK
Version 5, the latest and last of the official Apple Works 3.0 bug patches all the way from our friends at Beagle Bros.

ADDRSBK41.SHK
A Basic program that will keep tabs on your friends phone numbers and addresses. Full instructions included.

OTHELLO.SHK
The original and Classic game of Othello for the 40 column screen.

/XTRAS.GS.NO.5/

Programs Directory

GSH103.SHK
Version 1.0.3 of the GS specific archive program. This update fixes many bugs that were in previous versions and improves the user interface with separate source and target prefixes.
Extract to a 3.5 disk and then copy the files using the Finder.

FINDERPATCH2
You always wanted to customise your copy of the Finder, now you can. Quit to the launch program, move folders to the desktop and many other features may be modified easily and quickly.

Desk Accessory Directory

BASERR.BXY
A pair of CDA's that explain all those common and mysterious ProDOS and Basic errors.

RUNQ.V1.31.SHK
Extract to a 3.5 disk and copy the RunQ file to the SYSTEM.SETUP folder using the Finder.
RunQ is a quick and easy way of launching programs without using the Finder.

BASIC.CDA.SHK
Visit and work with Basic from any program running on the IIgs (ProDOS is inactive).

Games Directory

SENVO2.BXY
See how you fare against the evil forces of our society in this topical and fast arcade game. Needs a joystick.

Graphics Directory

VIEW.SHK
Viewer for the 3200 colour pictures. By a clever use of dithering and palette changes, these pictures appear to have many more colours than the 16 colour limit of the IIgs.

PICS32A.SHK
PICS32B.SHK
PICS32C.SHK
Three packed files of demonstration pictures to use with the 3200 picture viewer.

IIgs 3.5 - 5.25 Drive Spin

❑ We have mentioned a few times before the problem that can occur on the IIgs while using both 3.5 and 5.25 drives daisy-chained from the SmartPort. For no apparent reason the 3.5 and the 5.25 drive will suddenly start spinning together, the program will crash and when a reset is made, the 3.5 drive will apparently disappear.

US dealers were notified of the problem and a fix was available free. As the problem did not show on the Mac, no UK dealer was aware of the fix. Thanks to an anonymous donor, we now have a copy of the official Apple literature on the subject.

Get round to your dealer fast and show him this article! It is from the May 1988 Additional procedures Technical note.

APPLE 3.5 DRIVE SPINNING PROBLEM

In certain configurations a spinning problem may occur when Apple 3.5 drives and UniDisk 5.25 drives are daisy-chained and connected to an Apple IIGS. When this happens, one or more of the drives suddenly start to spin and can no longer be accessed. The problem **only** occurs on Apple 3.5 drives with Revision A daisy chain interface boards in the following configurations:

- An Apple IIGS with one or more Apple 3.5 drives attached, and one or more UniDisk 5.25 drives daisy-chained to one of the Apple 3.5 drives.
- An Apple IIGS with one or more Apple 3.5 drives attached, and a DuoDisk daisy-chained to one of the 3.5 drives.

The spinning problem is the result of electrostatic buildup within the circuitry of the Revision A daisy chain interface board. This problem causes no permanent damage to the drive, and normal functioning returns if the system is powered off and back on.

If an Apple 3.5 drive exhibits the spinning problem while in one of the configurations described above, replace the Revision A daisy chain interface board with a Revision B board.

IMPORTANT: Do not replace the Revision A board unless the drive has exhibited the spinning problem. Only when used in the configurations described above does the Revision A board have a performance problem.

To identify and replace the Revision A daisy chain interface board:

1. Place the Apple 3.5 Drive on the grounded workbench pad.
2. **Remove the case, the external cable and shield, and the daisy chain interface board.** (Take-Apart, if necessary).
3. Locate the part number on the gate array component (Figure 1, #1). The gate array is located on the side of the daisy chain interface board without a cable. Part number CXD1085A indicates a Revision A board, and part number CXD1085B indicates a Revision B board. **If the part number is CXD1085A (Figure 1, #1), replace the Revision A board with a Revision B board.**

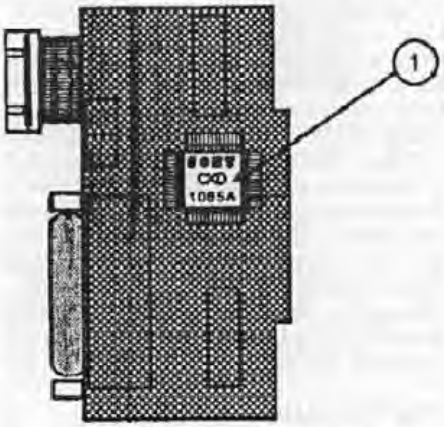


Figure 1

HARD-TO-FIND, UNIQUE PRODUCTS FOR APPLE II ENTHUSIASTS

from the most reputable fax/phone/mail order company serving the Apple II community

IIgs Batteries

When your IIgs loses track of time and can't remember your control panel settings, it means your battery is dead. Since the IIgs battery is soldered to the motherboard, some dealers actually want you to pay for a motherboard exchange to fix the problem. Instead, just clip off your old battery and slide-on one of these new replacements. No soldering necessary. Kit includes fully compatible lithium battery and complete installation instructions.

NO-001 Slide-On Battery for IIgs $14.95

Cheap 3.5 drives

For months you've been asking us to carry inexpensive 3.5 drives. For months what you've wanted simply wasn't available in a drive we could support. But now AMR has produced an 800K 3.5 drive that's just like an Apple 3.5 at a fraction of Apple's $429 price. Plugs into IIgs or IIe-Plus disk daisychain. Also works on a IIe with AMR's disk controller or on your Macintosh.

AM-001 AMR 3.5 drive $199.00
AM-002 AMR 3.5 controller for IIe $59.00

Prosel 8 and 16

Prosel is a comprehensive disk utility package. Prosel 8 works in the ProDOS 8 environment, Prosel 16 (includes Prosel 8) in the GS/OS environment of the Apple IIgs. Includes file and disk copy and backup utilities, program selector, scheduler, and much more.

GB-001 *Prosel 8* $40.00
GB-002 *Prosel 16* $60.00

Stack Support

Stacks have arrived in the Apple II kingdom and we're ready to offer charter subscriptions to the first Apple II publication about hypermedia. It's published 6 times a year as a set of stacks and distributed on 3.5 disks. ***Stack-Central*** includes the latest information on Apple II hypermedia developments, authoring tips, clip art and sounds, and samples of the best public domain and shareware stacks we can find. Requires *HyperStudio*.

SC-1 ***Stack-Central***, six 3.5 disks $42.00

HyperStudio

HyperStudio is the first program to take full advantage of the sound and graphics of the Apple IIgs. It's HyperCard-like, for those of you familiar with the Macintosh, but cards can use the full-color capabilities of the IIgs and no scripting language is required. You can create stacks and add sounds by point and click.

RW-005 ***HyperStudio*** $129.00
SCWH-1 Special HyperStudio/Stack-Central $139.00

Network Connectors

These are the connectors you need to create an AppleTalk network. Not only do they cost less than Apple's connectors, these work with inexpensive telephone wire (not supplied) rather than Apple's expensive, special cables. You need one connector for each computer and printer on the network.

OE-001 ***Modulet 8-pin*** $34.95
OE-002 ***Modulet 9-pin*** $34.95

News and solutions

Are you tired of Apple Computer's incessant message that only the Macintosh is a serious computer? Thousands of people like you subscribe to our monthly Apple II newsletter, ***A2-Central***. It's a small, personalized publication concerned only with the exchange of meaningful information about the Apple II.

Just 8 pages thin, each issue is professionally typeset and packed tight with answers to the questions Apple II users around the world are asking. It's punched for a three-ring binder, indexed each February, and is considered by many to be the single most important information resource in the Apple II world.

A 3.5 disk subscription is also available, which includes both a paper newsletter and the full text of that issue in a disk file for full-text searches. The remainder of the disk is filled with programs from our subscribers, from our library on GEnie, tech notes, system disk updaters, and other hot stuff.

A2-N1 ***A2-Central***, paper, 1 yr $28.00
A2-D1 ***A2-Central***, 3.5 disk, 1 yr $84.00

Apple II books

We carry in stock virtually every book in print that's about the Apple II. From Addison-Wesley's Apple Technical Library to Sams Computerfacts manuals to *AppleWorks Tips and Techniques*, we have them all. Write for our free catalog or call and ask about the book you're interested in. We also have in stock the accompanying disks for many books.

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FS-N Indexed back issues, paper $39.00
FS-D Back issue text on 3.5 disks $39.00
FD-001 ***FastData Pro***, for searches $49.00

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A2-Central

App Stats & Graph

Paul McMullin graphically charts his data with an update on this dynamic duo of analysis programs

APP Stats is a set of powerful statistical analysis programmes which has been available for Apple II computers for a number of years. Some readers may remember that it was reviewed by Mike Tickle in Apple 2000 (December 1988, p. 32). The statistical component of this new package (one side of the 5 1/4 floppy disk) seems to be essentially identical to that reviewed by Mike. We will not review it again, but there are some points about it which bear emphasising before going on to look in some detail at the new graphics functions on the flip side of the disk.

The Statistics.

This is essentially the ProDOS version of APP Stats, and it will run on any Apple II with a compatible 80 column display. The programmes are written in good old Applesoft Basic and there is no copy protection. Some of you are probably thinking "What's so good about a programme written in that old-fashioned, slow, non-structured language ?". Well, the main advantage is that if the user does not like something about the programme, it's not a major job to change it.

Let's look at some examples of this. It seemed totally unreasonable that a ProDOS-based programme should require that the programme disk be maintained in Drive 1 during use. This severely limits the ease of use of the programme on larger capacity media. I simply made a copy of the original files, loaded my trusty programme editor (GPLE) and got set to make the required changes. All I needed to do was find all programme lines which had ",D1" and remove it from them! Although this required editing 55 lines spread over the 10 different programmes, it only took me 20 minutes to finish the job. I also changed line 1500 in FILE1 so that quitting from the main menu exited to the PRODOS BYE routine rather than falling into Applesoft. Many more changes are possible but be careful to make them only to copies of the files, not the originals.

While the main programme has a limit of around 1500 data points, one writer in Open Apple (4.30), explains that the Beagle Compiler and large memory cards can greatly increase the capacity. The writer claimed that he could "do number crunching much easier than on a mainframe, and with the accuracy and speed ... that rival a mainframe". I have not done it but I have every reason to believe that it is possible. Of course, for many users, the way the programme runs without any modification will be perfectly adequate.

The manual for APP Stats is highly informative and has some useful tips in a number of appendices. It is not a text on statistics though, nor will use of this programme turn the user automatically into a statistician. Now for a few quibbles! Personally, I would have preferred to be able to select data files from a list rather than type in a name. I would also have preferred to have the capacity to read data in DIF files, and directly in AppleWorks files. It can however import data quite efficiently in standard text files (and provides detailed instructions on importing data from AppleWorks). It has to be said that the look and feel of this programme is a bit dated, probably as a result of an attempt to maintain compatibility across the full range of Apple II's. It is all text-based with full screen menus and selection by entering a number. The reason for the subtitle of this review is that the two major components of this package look as different from each other as Batman and Robin. So now let's choose "Graphs" from the main menu, or simply flip the disk and re-boot so we can see "how the other half lives".

The Graphs

The reverse side of the disk is all new to APP Stats. It is, in fact, a special edition of a business graphics programme called "Magna Charta" which has been adapted to read APP Stats data files directly.

The first thing which strikes the user about this programme is that it has a much more modern user interface than APP Stats itself. It is text-based but relies heavily on pull-down menus similar to GS-OS. As always there is a price to pay. This programme requires an enhanced Apple //e, a //c or a IIgs. On first booting we start with a simple configuration module to identify the printer interface card and printer. One really nice thing about this programme is that the operator can use a mouse, the arrow keys or a joy-stick for navigating around the screen and choosing options. If all three are attached, it is possible to jump from one to the other at will. The mouse is by far the quickest of the three options. The Open-Apple key performs some functions which would normally be expected of RETURN, and the Escape key does not always work when it should. The Closed-Apple or Option key is used in combination with other keys to bypass the pull-down menus.

Like APP Stats proper, the manual is well written and produced. Help screens are available when the menu bar is visible. Unfortunately it also resembles APP Stats in that the file names must be entered rather than selected from a list, although it is possible to scan volumes to establish the prefix. The data files are limited to a maximum of 400 data points (eg. 4 columns by 100 rows, or 50 columns by 8 rows etc.). When opening a new file to enter data within Magna Charta it is necessary to specify the desired number of rows and columns. There seemed to be a problem with the fields for specifying the number of rows and columns on my IIgs. I could not change them from the default 20 X 20. I could get around this by entering the data in APP Stats and importing in that format (in this case the number of rows and

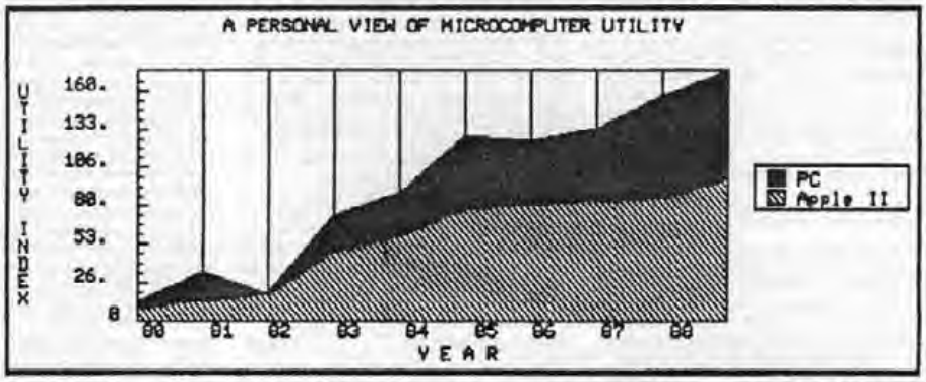


Fig. 5 An area chart printed using rotation, double height and double strike.

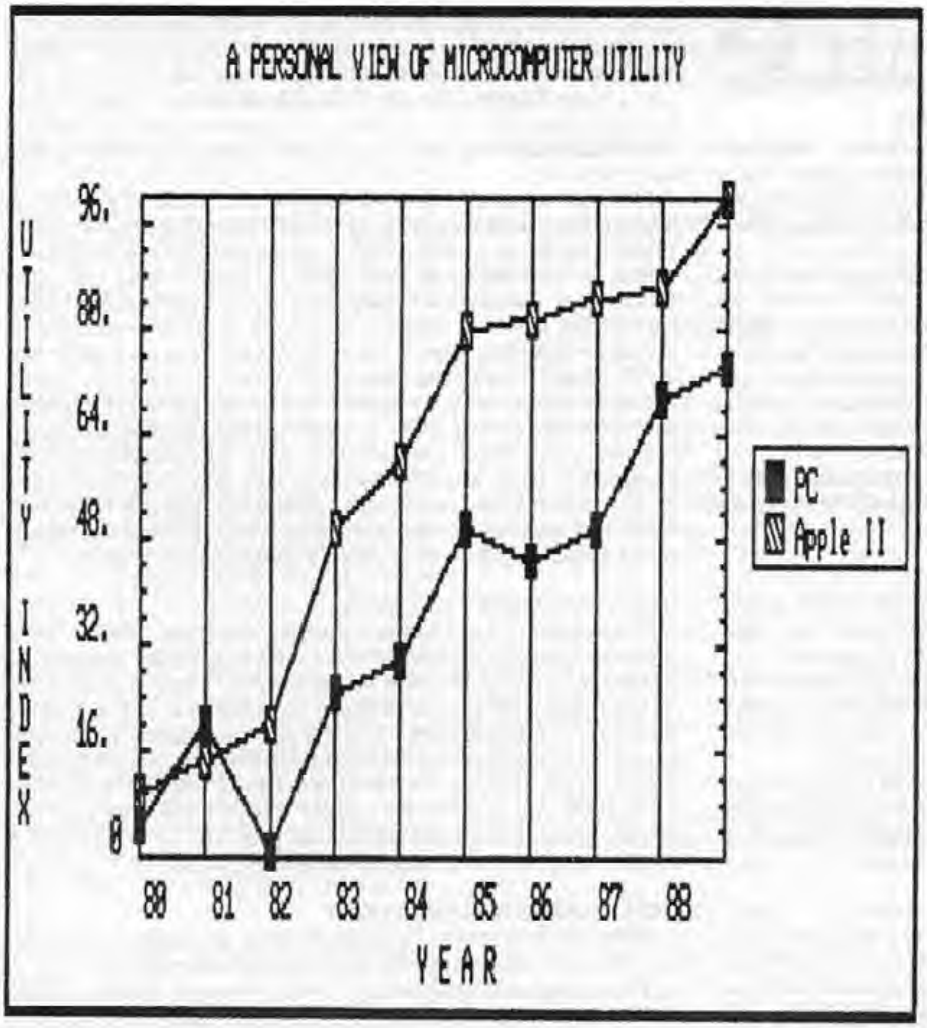


Fig. 4 A line chart printed using the double-height option.

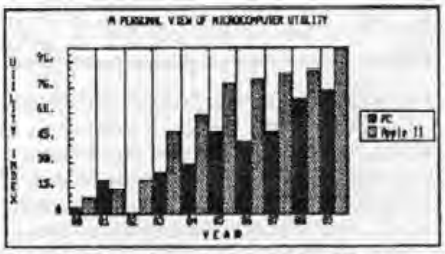


Fig. 1 Simple column type chart (histogram) using normal printing.

Fig. 2 Stacked columns using double strike printing.

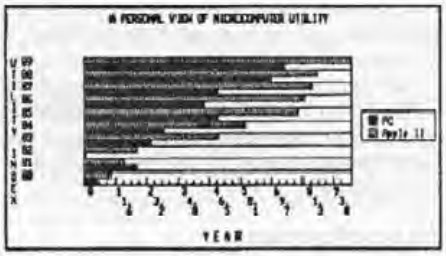


Fig. 3 Bar type graph using normal printing. This is like a histogram placed on its side. Note that the axis labels have not been swapped automatically.

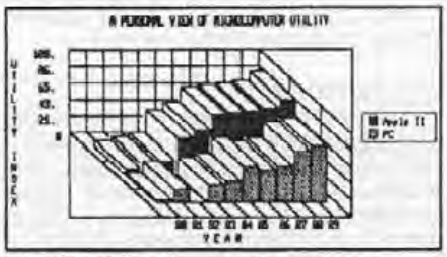


Fig 6. A 3-D chart using normal printing.

columns are read from the file). Data files can also be imported as text files from AppleWorks (but I ran into the same problem with specifying the number of rows and columns). The data can be edited in a spreadsheet-like data display window. If you need to enter a large volume of data you will probably prefer doing it in AppleWorks and exporting as a text file to APP Stats and to Magna Charta.

What about the graphs themselves? There are extensive functions available in pull-down menus which allow us to :

- ❑ *save data files*
- ❑ *print graphs in different ways*
- ❑ *choose different graph types*
- ❑ *modify axis and category lines*
- ❑ *modify details of graph format*
- ❑ *add and remove title, legend and axis labels*
- ❑ *and finally to re-draw, view and modify the graphs.*

The current settings are stored along with the data when a file is saved. To test these functions I entered some fictitious (or at least subjective!) data on the usefulness to me of two major types of microcomputer in the 80's. The resulting graphs were printed very quickly (about 30 seconds for the standard mode) on my Panasonic KX-P1180 (emulating an Epson FX) and are shown in Figures 1 to 6. Additional chart types which the programme can prepare but which are not shown are ; scatter chart, line and column chart, and pie chart.

Here we have two powerful applications in one package, one for statistics and the other for creating a variety of charts. They have very different user interfaces and integration between the two is restricted to the importation of the statistics data files by the graphics programme. However anyone who has an enhanced //e, //c or a IIgs and who needs powerful programmes in these areas would do well to consider this package.

Upgrading and Availability

Upgrades for existing owners of App Stats and Graph can be obtained directly from the publishers in the States.

Upgrades cost $39 (plus $5 shipping and handling). Overseas customers please add $8 (instead of $5) for Air Mail (insured) shipping and handling.

Also available from MGA.

Paul McMullin

info

Product : App Stats & Graph
Publisher : Statsoft
Available from :
MGA SoftCat
41 Cinque Port Street
Rye
East Sussex TN31 7AD
0797-226601
Price : £115.85 WYSIWYP

Value : ★★★★
Performance : ★★★
Documentation : ★★★★

SoftCat Corner

WEIRDEST APPLE II PERIPHERAL YET?

I've just been sent "Calmpute", a hardware/software package from Thought Technology of Montreal. Its a biofeedback stress monitoring device which with the included software "helps you reduce tension & experience deep relaxation". (their words; not mine).

This wondrous bit of kit plugs into the game port on a][+, //e, //c, or IIGS, then you connect your hand to the device and "that's where the fun begins". Calmpute measures your level of tension through galvanic skin resistance, or more basically, the opening & closing of the pores of the skin. There's even an included car game called 'Calmprix', which stimulates you but hopefully teaches you to stay calm under pressure. At *£99.00 I would guess that this is a tool more geared to private healthcare, or educational establishments than your average Appler. [Apple 2000 reviewer required]

CABLING TIP

If you ever have to check the pin-connections on cables with female D-type connectors, you might find that your multi-meter's probe is too large to fit into the socket. For years I've been pushing a short piece of wire into the socket then struggling to hold that and the probe together to check a connection, - almost impossible when you've got to do the other end of the cable at the same time!

The simple answer (as with most things) is to connect an unused solder plug to the female socket so that you now have easy access to the connections whatever the size of your probe...

TEACHER'S MAG

Although not Apple II specific, educators may be interested in "Classroom Computer Learning", an 8-issue per year magazine with a current USA readership of 80,000. As Apple II is still the foremost educator's tool in the States, this is probably a good read for just $24.00 p.a. (add $8.00 for foreign shipping). To get your subs, write to: CLASSROOM COMPUTER LEARNING, 2451 East River Road, Dayton, OH 45439 USA.

CROSS WORKING

Today I was just about to redo my USA PriceList which has been an AppleWorks word-processor file for years, (we don't sell many products to America). I decided for no particular reason that it was time it was updated and given a DTP facelift. Now, I use TimeWorks Publisher (Publish-It!) on an IBM-PC in order to get cheap 300dpi output. I was going to fire up my DTP system and simply type in the few items and create a fancy layout.

STOP! - I thought; what's with all this hype about connectivity, if you don't bother taking advantage of it? So, off the shelf came a copy of CrossWorks, the cable plugged into my IIGS modem port, and the other end into my PC/286 using three 2m M/F D-25 extension cables. I installed the PC & Apple CrossWorks software into both machines, ran them both up, selected the file & filetype at both ends, and whamo! It worked first time! AND, I hadn't even read the manual, nor needed to do any fancy serial port switch or jumper resetting, it worked flawlessly first time on the default settings! This is kind of software I like! I then simply exited CrossWorks at the PC machine, loaded my Publisher, created a frame, and imported the (was) AppleWorks file, and tarted the titles etc. up with large (and 300dpi) fonts.

So now the CrossWorks cable is a permanent feature between my Apple & PC desks. Sue's tripped over it once, so I've developed an ingenious solution; - I disconnect the cable halfway along & leave both ends under the tables! There's a high-tech solution for you...

EASY DRIVING

As an avid MouseDesk user, (yes, I'm still using it on my IIGS!), I was pleasantly surprised (surprised is really the word!) when I decided to install EasyDrive onto my ProFILE (yes, I'm still using it on my IIGS!). Firstly, the intention was just to use it to replace my old Apple BackUp //, and to use its Optimizer feature to speed up access time on the ProFILE which has been fragmenting files all over the drive unchecked for years.

But, after installation, I found I wasn't able to access my MouseDesk any longer, and in fact everything reverted to EasyDrive after quitting any application just as it used to revert to MouseDesk. Perturbed, I looked into this, and found that EasyDrive really does install itself rather than just being another application, and in fact does a bit of sneaky renaming here & there so that it becomes your new 'DOS Shell'. Not being particularly clever is these departments, I temporarily accepted the inevitable, and reinstalled all my applications which used to be selectable from my MouseDesk 'Applications Run List' as selectable from EasyDrive. This was child's play, and far easier to do than in MouseDesk. So now I have EasyDrive as my hard disk front end and I'm ecstatic! It's much faster, cleaner, easier, and I just, well, love it, - there's no going back now...

CHEAP IMAGEWRITERS-3

As promised, here is the latest info on this printer. Well, it seems that the Olympia NP-30APL is actually going to be available in 240v. The UK distributor saw my last mention in the August edition and called me to advise same. Pricing details are:- £345 (incl.VAT, for the base 240v unit, with serial & parallel ports plus the ImageWriter emulation ROM fitted, push tractor feed is fitted but it seems to be only adjustable for approx 8.5" paper - if you want to use 1up labels, you will need an additional pull tractor @ £51.75). A single sheet feeder is also available at £143.75.

COMPUTERS & GENEALOGY

If you are interested in family history research & computers here are addresses for two regular newsletters;-

"Genealogical Computing", Data Transfer Assocs, 5102 Pommeroy Drive, Fairfax, VA 22032, USA (tel: 0101 703 978 3532).

"Computers in Genealogy", Society of Genealogists, 14 Charterhouse Bldgs., Goswell Rd., London EC1M 7BA (tel: 071-251-8799).

EXTENDED ENHANCEMENT KIT

The current model //e differs from the original model in two ways, firstly it is supplied as a 128K unit, as well as containing three different ROMs and an improved 6502 cpu. Most recent software requires this configuration, (a typical application is Publish-It!), and you can upgrade by buying two kits from Apple. The first is known as "Extended 80-Column Card", and this replaces the original "80-Column Text Card" and provides an additional 64K RAM as well as the 80-column facility and double hi-res graphics, (this is required for programs such as AppleWorks v3, BeagleWrite etc.). Apple currently lists this card @ £158.23 (P/No.661-91097), and our fully compatible version costs just *£39.95, (recently reduced from *£49.95).

The second upgrade is called "Apple //e Enhancement Kit" and it costs £69.00 from Apple, but just *£34.95 from MGA.

For people wanting to run modern Apple // software we have created the "Extended Enhancement Kit" which contains both the Enhancement Kit as well as an Extended 80-Column Card, - price *£69.95. By my calculator I reckon that's a saving of £157.28...

SLOTBUSTERS!

Mentioned in Apple Slices Jul'90 pp3/4, "SlotBuster" is a very useful multifunction card for the Apple][or //e or IIGS which many members will not have heard of before. SlotBuster II can be configured to have the following:- Apple Parallel Card-compatible printer port; Apple Super Serial-compatible modem & serial printer ports (both); speech synthesiser with speaker port; ProDOS/AppleWorks clock;

<64K buffer for serial, parallel or synthesiser ports; and a BSR-compatible electrical device control port (requires BSR Console). All this on a single card!

Incredible? No, - but definitely pricey! The base card with 8K buffer & ASSC printer port costs *£149.95, then add these options:- Speech £39.95; Parallel Port £19.95; Modem Port £29.95; BSR Port £29.95, Clock £39.95; 32K Buffer £29.95; 64K Buffer £57.95, Parallel Cable £14.95, Serial Cable £11.95.

In addition, there is the optional "SCAT" software for blind users @ £19.95, plus "Talking Manual" (including SCAT) @ £34.95, and "AppleWorks Companion" @ £39.95. This AppleWorks Companion is not the same as MGA's old AW-Companion, which was a collection of PD AWP/ADB/ASP files for AppleWorks. RC Systems' AppleWorks Companion is software which gives visually-impaired Apple II users full access to AppleWorks. It enhances the AW word-processor, database and spreadsheet by providing oral keyboard and full screen-review features. The companion automatically speaks important screen information, but the user can use any of the many new speech commands added to AW by the Companion to help use AW more effectively. (requires speech option).

LOWER CASE - BEATS UNDOING CASE

As we are now selling Muse's SuperText Pro (STP) @ *£27.95, many][+ users have been tempted to buy this excellent word processor (which used to cost $175.00). STP works in 40-columns & requires a lower case adaptor (LCA), or in 80-columns with an appropriate card, (or indeed on a //ec).

The problem for some users has been that they just don't know whether or not they have a LCA fitted. To find out, you have to dismantle the Apple and check the ROM in location A-4/5/6 (ROM SPCL). If it is the standard Apple 341-0036, then no LCA is present, and one would be needed to be purchased to run STP.

Well, to save all that messing about, here's a simple test program you can use to check if an LCA is present without opening the case:-

```
10 FOR X = 33 TO 127
20 PRINT CHR$(X);
30 NEXT X
```

If an LCA is installed and functioning correctly, you will see two lines of characters with both upper & lower case featured.

This program is included on our *£4.00 DOS Starter Disk, for those unfamiliar with entering & running Applesoft programs, which apart from giving you this test, also provides a short tutorial on how to run programs from DOS and other beginner topics, as well as programs to test various cards and an Apple II model type tester, (advises if you have a][+, //e, //e with enhanced ROMs, //c w/UniDisk ROM, etc.).

FONTRIX/PRINTRIX CLUB

If you use either of these programs you can join Rod Nelson's great club and receive his newsletter each month for just $42.00 first year; $30.00 thereafter, (these prices are paid to UK).

The Apple Fontrix/Printrix Club (AFC) is a group of enthusiasts who have joined together for the exchange of knowledge and to help the novice and the experienced user alike with problems or ideas.

Rod currently works for Broderbund after Data Transforms (who make Fontrix & Printrix) stopped Apple II development.

Rod probably knows more about these two programs than any man alive.

AFC, P.O.Box 13774, San Rafael, CA 94913-3774 (0101 415 898 9031).

NEW PRINT SHOP CLUB

With the (at last) eventual release of Broderbund's new version of Print Shop, Rod Nelson has decided to start a new club called NAPSC. This will be similar to AFC but bimonthly to start. I only have domestic USA prices at present. ($35 first year; $20.00 thereafter), but phoning should give you UK airmail prices. First issue is expected to start Sep/Oct'90.

Yours with good cheer .....
Jon Gurr
(Apple II Product Manager, MGA SoftCat)

New Kit

AWPW 128K RAMcard *£79.95
Expands Apple //c AppleWorks desktop to 136K. Lowest-priced RAM upgrade for //c AppleWorks in the world! Goes in slots 2/4/5.

Fujitsu 3.5" Drive *£199.00
Now our standard 3.5" drive for Macs and UDC users. Available in either buff or platinum to match your system, this new external 800K drive is ultra-thin and can be desk-mounted flat, tilted up at the front, or even vertically to save desktop space.

IIGS Heavy-Duty PSU (AE) *£99.00
60w switchable 110/240v PSU to replace Apple's 38w unit. Provides +5v/6a/+12v/2a/-5v/0.5a/-12v/0.5a outputs.

ImageWriter II Case (Page Bags) *£64.95
Carry case available in black, grey, or navy.

8-Pin Gender Changer (MGA) £9.95
F/F unit converts m/m mini 8-pin DIN cable to m/f.

8-Pin Data Switch (Data Spec) £39.95
Connects one computer to two printers or vice versa. Requires special straight-thru data switch cable (£6.95) plus two standard m/m printer cables, or 2 data switch cables and one printer cable.

8-Pin Data Switch-4 (Data Spec) £49.95
As above, but connects 1:4 or 4:1.

Primo (Cirtech) *£79.95
4Mb Multifunction memory expansion card for IIGS, uses 410000-type DRAMs. Unpopulated at this price. Add-on SCSI port &/or 20/40Mb hard disk drives available soon!

Internal Fan £24.95
For //c or][+, fits inside case and attaches to existing connector. Provides much-needed cooling for card-crowded systems.

New Prices

NewsRoom (Springboard) *£34.95
64K newsletter program - the only one for the][+.

Echo II (Street Electronics) *£129.95
Speech synthesizer card for][, //c or IIGS. Includes external speaker. Echo is the longest-running and most widely-supported speech system for education and games. If it speaks, it's almost sure to be Echo-compatible. An external //c version is also available @ *£149.95.

256K RAM Upgrade £24.95
Set of 8 x 41256-type DRAMs for RAMworks, plusRAM etc.

Prices include VAT & * denotes land prices also include UK p&p. E.& O.E.

MGA SoftCat
41 Cinque Ports Street, Rye
E. Sussex TN31 7AD

VISA

1Mb RAM Upgrade £69.95
Set of 8 x 410000-type DRAMs for plusRAM-16, and all 4Mb IIGS boards.

GS Cooling Fan £24.95
Lowest-ever price - fits inside IIGS case to existing fan connector.

DB Master 5 (StoneWare) *£16.00
DBM5 has gone shareware! Unbelievable but true! Specify 5.25" or 3.5", includes 50 pages of self-printing documentation on disk. Shareware fee is just $45 if you decide to use it. The grandaddy of all Apple II databases is finally made available at a price to suit all pockets.

NewsRoom Clip Art Vols.1,2,3 (Springboard) each £19.95
Lowest-ever price. Use with Publish-It!3, Print Magic, NewsRoom, or with Print Shop compatible programs using ClipCapture or other converter. Vol.1: All occasion Art has 600 pieces; Vol.2: Business Art has 800 pieces; and Vol.3: Sport & Recreational Art has 600.

New Software

ProDOS-8 System Disk v3.2 (Applc) *£4.00
The new version of ProDOS has two bug fixes; a problem with loading programs larger than 38K and a problem with calling the "Program Too Large" error message were fixed. As an enhancement, v1.9 will load an enhanced quit routine that is installed on enhanced 128K //e systems (or //c & IIGS). For these systems you get a mini-selector instead of the "Enter Prefix" and "Pathname" messages. (About time too!).
Basic System v1.4.1 has been altered to force clearing the previous contents of the pointer to the previous file position before setting the end-of-file. Previously a value remaining in the high byte could prevent setting the correct EOF.

Bouncing Bluster (Fantasia Entertainment) *£9.00
Arkanoid II clone for the IIGS. All the action at a lower price. Shareware Fee 100FFr or US$15.00.

HandWriting Analyst (CIASA) *£69.95
Graphology system.

Personal Publisher (Expert) £14.95
Budget newsletter/brochure/poster maker. Includes fancy fonts and clip art. NOTE: This, and all following Expert titles require a 128K //eGS. ALSO: Each Expert title includes disks for Apple //, Commodore-64, AND IBM-PC!!!

MGA SoftCat
Tel: 0797-226601 [fax: 226721]
sensible software since '79

Silpheed

シルフィード SUPER DOGFIGHTER

An arcade game for the IIgs reviewed by Dave Ferris

Introduction

"How many ages hence shall this our lofty scene be acted over, in states unborn and accents yet unknown?". How many arcade games start off with a quotation from Shakespeare (Cassius in Julius Caesar, Act 3 Scene 1). Silpheed does. Silpheed is from Sierra On-Line by Game Arts, who also produced Thexder. It is a Shoot-em-up-in-Space arcade game in the classic style for the Apple //GS, complete with musical accompaniment.

It comes on two 3.5" discs, a boot/program disc and a data disc. When booted from floppy it requires 512K. However if you have a hard disc and 760K the contents of both discs can be installed on the hard disc and launched from the finder. This is preferable, since the program is large and takes a good 2-3 minutes to load from floppy. If RAM is no object then copy the program to a Ram Disc and get the title screen in 17 seconds.

The discs are not copy protected, but a tedious form of protection is enforced by requiring you to identify an enemy craft from the recognition chart in the manual before the game can be played. I do not understand the reasoning behind this, since the chart can be easily copied by anyone intent on making illegal copies of the program!

The game may be played with either keyboard controls or a joystick, but I'm certainly too ham fisted to manage it without the joystick.

The Game

Silpheed starts up, after the above quotation, with a complex introduction with wire frame animations, reminiscent of Elite, while playing one of the 9 original musical scores that accompany all stages of the game. If you are patient and can sit through the entire introduction (which is worth it at least once) you will then move on to the demonstration game play. For the less patient, hitting any key during the introduction or demo will take you to the start of the game proper.

> ... It is fast and furious and as addictive as all the best arcade games.

Here you are challenged by the talking head of Xacalite, who has stolen the Unions new battleship Gloire, only you in the prototype SA-08 Super Dogfighter Silpheed stand a chance of defeating him. Battle is joined with the enemy forces in a seemingly endless stream of looping, swirling craft with assorted weaponry and tactics.

At some levels you can collect extra attributes by collecting letter tiles (a la Arkanoid) released by zapped Golan cargo pods, which look like ordinary asteroids. These give you additional firepower, speed, extra shield power and other useful things.

There are 20 levels to fight and navigate through, in space, above planets, inside a space fortress and in an asteroid belt. Only when you have survived all these do you get to the final conflict with Xacalite aboard the Gloire. After each level you rendezvous with one of two tenders for repairs, replenishment of shield energy and to choose the weapons for the next level. What is available is dependent on your score, but care is required to select the right weapons for each level.

You only have one ship to play with, when that gets destroyed the game is over, select carriage return to start again, shift-9 [( ] to restart at the last level achieved or shift-0 [ )] to load the highest level achieved. If you have finished playing, do nothing after Game Over, and you will be presented with the end title theme over credits that wouldn't look out of place at the end of a movie.

Documentation

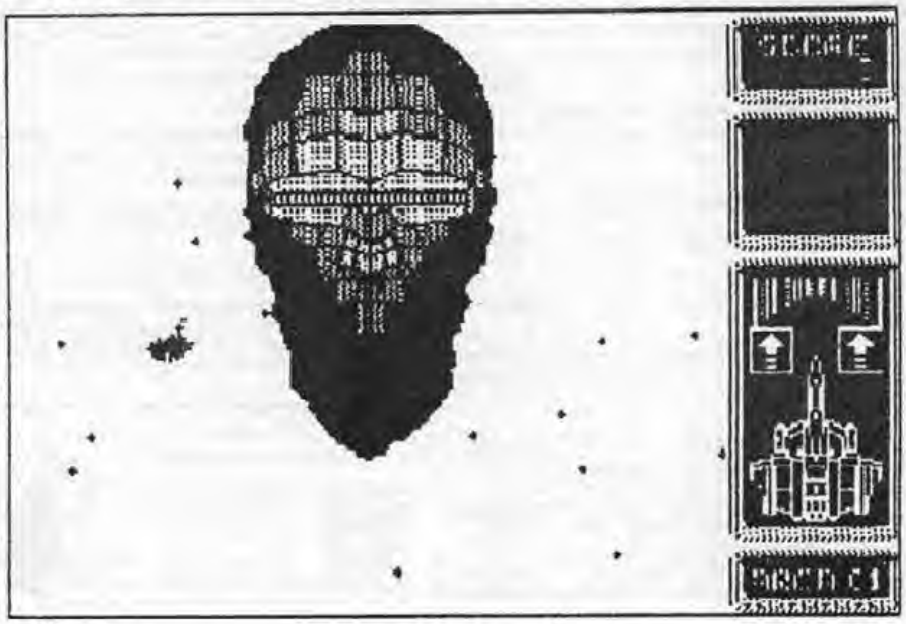
The package contains a 16 page booklet with a short scenario to introduce the game, instructions for loading and playing, including a few useful hints (not enough for me though). It also has some 'technical data' on some of the friendly and enemy craft and a centre spread with the recognition chart that you need to start the game. Also included on a separate sheet are the instructions for installation on a hard disc.

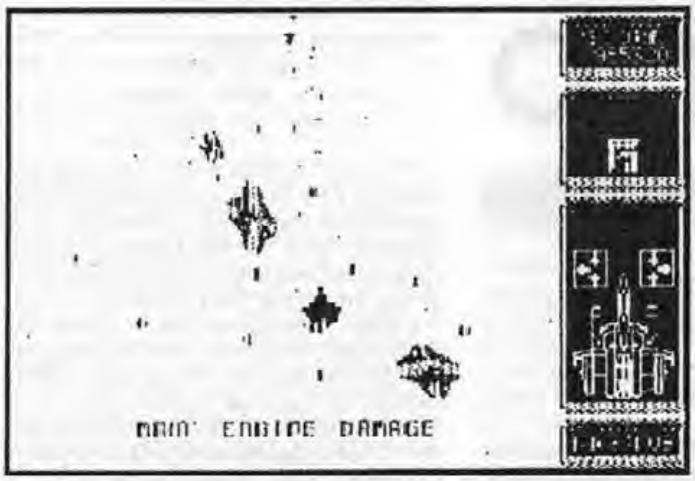
Conclusion

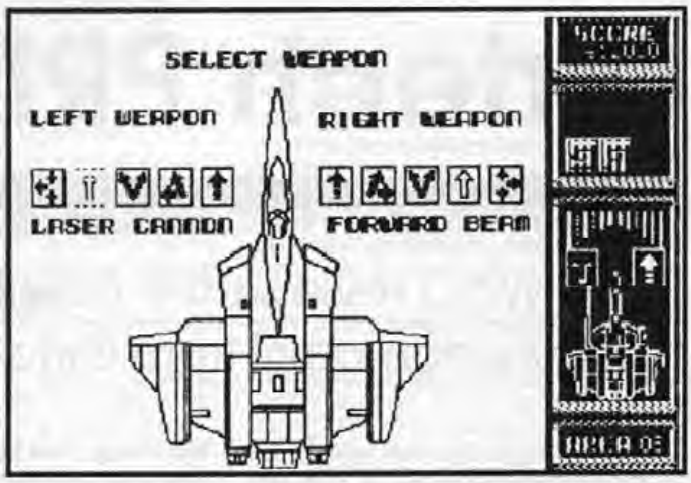
I was able to sample the program in the shop before I bought it, but I knew, as soon as it started up, that I had to have it. I think it is probably worth it just for the music alone, which is better than any other games I have tried. It can be turned off with a keyboard command, otherwise it will continuously accompany all levels of play, not that this detracts in any way from the game play itself. It is fast and furious and as addictive as all the best arcade games.

I have to admit here that this review cannot be complete since I haven't managed to get anywhere near the higher levels so far, this is a pity because levels 6, 11 and 16 start with Cartoon Sequences. This game is no pushover and you can't slow it down by switching the processor speed to Normal, that disables the joystick - Rats! I guess I'm just going to have to keep practising. Often.

Dave Ferris







info

Product : Silpheed
Publisher : Sierra On-Line Inc.
Available from :
MGA SoftCat
41 Cinque Port Street
Rye
East Sussex TN31 7AD
0797-226601
Price : £29.95 WYSIWYP

Value : ★★★★★
Performance : ★★★★★
Documentation : ★★★★

Personal Skills (Expert) £14.95
Includes Typing Tutor, Memory Builder, Decision Maker, and Speed Reading Tutor.

Personal Finance (Expert) £14.95
More than just a chequebook balancing system, PF provides expense reports, income statements, trial balance, & more...

Money Power (Expert) £14.95
A system for assessing loans & savings and much more.

Disk Tool (Expert) £14.95
ProDOS utilities for day-to-day use, like formatting & copying disks, making & renaming subdirectories, copying files etc. Shows you what on each disk & even prints a listing to keep with the disk.

PC Protection (Expert) £14.95
Hardware diagnostics system for 128K //ecGS plus useful disk utilities.

MultiColour Graphics GS155 *£4.50
Compatible with Print Shop GS, Labels-Labels-Labels, and Publish-It!3. Contains 100 colour graphics depicting sports, hobbies and games. Price is for 3.5", a double-sided 5.25" version is also available for *£5.00.

New Clearance Prices

Apple //c Clone (Taiwan) *£199.95
This brand-new 64K unit is ideal as a second machine for AppleWorks or similar. Included in the price is a 1Mb RAMworks-compatible 80-column & memory expansion card (with 256K). A real bargain at this incredibly low price. (One only).

Publish-It! v1 (TimeWorks) £39.95
True DTP for 128K //ecGS at a price that makes sense.

AppleWorks v1.2 w/PlusWorks *£89.95
Incredible bargain! Now you can get AppleWorks for the][+ at a fraction of the 1988 price. Provides spreadsheet, word-processor and database all in one. Now's the time to throw your Visicalc & AppleWriter!

AppleWorks v2 *£99.95
128K System for //ecGS users incorporating new mailmerge feature for personalised formletters from your database mailing list.

AppleWorks v1.2 *£79.95
For //ecGS - lowest-ever price. Even works on a 64K //e!

Street Sports Basketball (Epyx) £6.95

World Games (Epyx) £6.95

The Games: Summer Edition £9.95

The Games: Winter Edition £9.95
The above four games require a 5.25" 128K //ecGS system.

Sub Battle Simulator £6.95
64K Game for all 5.25" IIs.

Destroyer (Epyx) £9.95
A £9.95 game for the IIGS? Yes, it's true. This 512K game places you as captain of a fully-armed Fletcher class US Navy destroyer using radar & sonar to keep track of subs, ships and aircraft. Your twin 40mm Bofors and depth charges make you a worthy opponent for any surface or air raiders.

Space Shuttle £6.95

Empire I £6.95

Borrowed Time *£9.95

Mindshadow £6.95

Oil Barons £6.95

Halley Project £6.95

MouseDesk // £14.95

Hands-on Basic Programming £9.95

Publish-It! TriPak £39.95
Get three great clip art packages from TimeWorks for the RRP of one! You get Education Graphics, People Places & Things, plus Symbols & Slogans. All three packs include both 5.25" & 3.5" disks.

Publish-It! Font TwinPak £29.95
Incredible value! A total of sixteen all-new fonts for Publish-It! from the makers, TimeWorks.

Copy II+ v8 £19.95
Few only now, last chance to get this 5.25"-only package for][+ & unenhanced //e. (remember that v9 requires a //e, enhanced //e or IIGS)

40/80-Column Switchbox £4.95
Going, going, soon gone... Last chance to get an external manual switching unit for your][+ 80-column cards. No more changing cables around; just flick the switch.

UniDisk 5.25 (Apple) *£89.95
Last chance - four only left. This is a brand-new buff 5.25" daisychain drive for IIGS users. Why pay £224.25? (can be used on //c or][+ & //e with appropriate D-19 card or adaptor).

//c Monitor Stand £4.95
What a giveaway! Specifically for the Apple Monitor //c, but we have successfully mod'd one for other monitors by the high-tech method of bolting a short plank of wood on top! Equally useful for other home computers like BBC, Commodore-64 etc.

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Cirtech PRIMO

Dave Ward reviews the new IIgs multifunction card from Cirtech

When the Apple IIgs was introduced in late 1986 it was supplied with just 256K of main memory. In theory the 65816 cpu at the heart of the Apple IIgs could address 16 Megabytes of memory but Apple's Engineers had designed the machine to have a maximum 8 Megabytes of RAM in a special slot which was available for cards with the extra memory. Apple initially supplied a 1 Megabyte memory expansion card but third party manufacturers such as Cirtech soon produced cards which could contain up to the maximum of 8 Megabytes. For various reasons including the introduction of the Apple DMA SCSI card only 4 megabytes of RAM can be supported on cards in the special memory slot. To address this Cirtech have introduced the Primo memory card which supports 1,2 or 4 Megabytes of RAM. The Primo card is more than a memory card; it is a multifunctional card. In this review we'll look at the memory card and complete the review in the December issue of Apple 2000 magazine, with a look at the other functions.

Enter the PRIMO Card

Cirtech (UK) Ltd have kindly loaned us a 4 Megabyte Primo card for evaluation over a few weeks. The card arrived in an anti-static bag in the usual well padded box together with a 3.5" support diskette, 20 page manual and registration card. There is a new Cirtech logo on the box and manual of a (yellow) sun rising from behind the (presumably Scottish borders) hills.

Primo cards fit into the special memory expansion slot in the Apple IIGS. Note the caveat that these cards are only compatible with the Apple IIGS and should not be put into any other slot. Placing any of these special Apple IIGS cards into any other slot or for that matter in a slot in any other Apple // computer is an expensive way of producing a small puff of blue smoke and a rather unpleasant smell!!

Compact and Professional

Like all Cirtech cards the Primo is small and compact but well presented and looks professional. The card measures just 14.5cm long by 8cm high. There are lugs and holes to allow the fitting of an InSyder hard disk! or just the InSyder SCSI card for external SCSI drives.

Fitting the Primo card couldn't have been simpler and the manual carefully describes the process.

Availablity

The Primo multifunctional card is available in the following sizes:

0 Megabytes You can add 1,2 or 4 Megabytes of RAM.
1 Megabyte You can add 1 or 3 Megabytes of RAM.
2 Megabytes You can add only 2 Megabytes of RAM.
4 Megabytes This card is fully populated with RAM.

The above table shows the sizes available and all the possible combinations of RAM that you can add to the card. Your card must have at least 1 Megabyte of RAM to install and only sizes of 1,2 and 4 Megabytes are supported. The manual shows a diagram of the exact positions of the RAM chips on the board to make upgrading easy. This diagram is essential since the positions of the chips is not as one would expect. Cirtech sell 8 by 1 Megabit chips for each 1 Megabyte upgrade but also list the recommended types of chips should you wish to purchase your own from elsewhere.

The Software Diskette

See figure 1 for a listing of the files on the 3.5" software support diskette.

When this diskette is booted a menu appears with four options:-

```
1) Run FILER
2) Exit to BASIC
3) RAM Memory tester
4) DOS 3.3 support
```

The third option to test the memory on board the Primo card is useful if you think that you have a problem: any problem with the RAM will produce a diagnostic message that may help your dealer in curing that problem.

Option four allows one to create an 800K RAM disk from the control panel and format this as two DOS3.3 400K drives. In the past Cirtech have provided software to enable users to create CP/M, Pascal and DOS3.3 partitions on their RAM cards, Battery backed RAM disks and Diamond, InSyder hard disk drives. The ability to create these partitions on a RAM disk may not be that advantageous, however, since the partition has to be set-up and loaded with files each time you switch the machine on. Cirtech don't supply their CP/M and Pascal support for the Primo card possibly because these older operating systems may not perform well in a DMA environment.

The DOS 3.3 Option

The DOS3.3 option can, however, be considered to be a gift since one can use it to create 3.5" diskettes that are seen as two 400K DOS3.3 drives.

If you recall my review of the plusRAM GS cards in Apple 2000 magazine you will have noticed that Cirtech then supplied a lot of AppleWorks support for those cards. Since then AppleWorks version 3.0 and TimeOut applications have arrived which do the same things and such extensive AppleWorks support is no longer required. I boot AppleWorks through GSOS followed by ProDOS 8 but still got a 3780K desktop with AppleWorks 3.0!

Revision 3 Roms

I couldn't check the 4 Megabyte card in an Apple IIgs with the new motherboard which has over 1 Megabyte of memory on board. Cirtech tell me that the problem is with there being more that 4 Megabytes on the memory card and users should, therefore, have 5 Megabytes of usable memory!

Figure 1

```
/PRIMO
 NAME           TYPE  BLOCKS  MODIFIED         CREATED        ENDFILE SUBTYPE

 PRIMOT.O       BIN        6  10-JUL-90 11:04  10-JUL-90 13:31     2296 A=$4000
 PRODOS         SYS       32  14-JUN-89  9:56  16-JUL-90 14:49    15741
 BASIC.SYSTEM   SYS       21   1-AUG-89 16:26  16-JUL-90 15:20    10240
 FILER          SYS       51  18-JUN-84  0:00  16-MAR-90  9:54    25600
 UDOS.PROD      BIN        3  10-JUL-90 13:58  10-JUL-90 13:54    10:21 A=$4000
 UDOS.LANG.PROD BIN        3  10-JUL-90 13:58  10-JUL-90 13:58    10:13 A=$4000
 FID.PROD       BIN       11   7-APR-89 17:09  16-MAR-90  9:55    48:64 A=$4500
 STARTUP        BAS        9  16-JUL-90 15:34  16-MAR-90  9:57     3703

BLOCKS FREE: 1457     BLOCKS USED:  143     TOTAL BLOCKS: 1600
```

Conclusion

In conclusion the 4 Megabyte Primo card that I have reviewed for the past month was very easy to install and use. Like all Cirtech RAM cards this 4 Megabyte card generates no discernible heat and has run perfectly. The Primo provides a perfect way to increase memory as the Apple IIgs system software becomes more sophisticated (requires more memory) and program packages need more and more RAM to work effectively. There is also the hidden memory guzzlers such as drivers, Desk Accessories and Fonts etc. When the Apple IIgs was introduced a memory card with just 256K of RAM would suffice, by early 1988 512K was advisable. When GSOS version 5.02 arrived on the scene in 1989 a 1 megabyte card became virtually a requirement, and if you had a lot of Desk Accessories when running certain programs a little more than 1 Megabyte would be required. Now if you want a RAM disk, too, you'll need 2 Megabytes on your card. For the next few years 1 Megabit RAM chips will reduce in price, so only buy what you need and add more memory later.

Pricing Structure:

Primo 0 Megabytes	£ 69.00 ex VAT
Primo 1 Megabytes	£139.00 ex VAT
Primo 2 Megabytes	£209.00 ex VAT
Primo 4 Megabytes	£349.00 ex VAT

1 megabytes (8 chips) upgrade £74.00 excluding VAT

The Primo multifunctional card is manufactured by:-

Cirtech (UK) Limited
Monksford Stables
Newtown St Boswells TD6 0RU
Telephone: (0835) 23898

The Primo card is also available from:-

Alan Finn, ClockTower
PO Box 1417
London N8 9PW
Telephone and facsimile 081-341-9023

Bidmuthin Technologies Ltd.
Brent House
214 Kenton Road
Harrow
Middlesex HA3 8BT
Telephone : 01-907-8516
Facsimile : 01-907-4398

Holdens Computer Services
The Mansions
Chapel Lane
Longton
Preston
Lancashire PR4 5EB
Telephone : 0772-615919
Facsimile : 0772-615512

Dave Ward

Undocumented Commands and Hints for AppleWorks 3.0

1. Save to your original directories and remove all files from desktop.
Example: Place a couple of files from 4 or 5 different original directories onto the desktop. Change all files a little. Move to "Main Menu" and choose no 4, "Remove files from desktop". When the files have been listed, press OPEN APPLE - RIGHT ARROW. This will mark **all** files on the list for "Remove". Now press OPEN APPLE - RETURN. All listed files will automatically be saved to their original directories and immediately be removed from the desktop. The original directories must of course be accessible.

OPEN APPLE - RIGHT ARROW will mark all files in *all* lists with files/documents.

2. Shortcut to a known folder (original directory)

The new way to name a "ProDOS Directory" in AppleWorks 3.0, by branching up and down in various original directories is certainly OK if you aren't sure where to find the file you are looking for. Sometimes it may be a painfully slow method if you know where you want to go.
Example: When you are in a "Change Directory" menu (there is more than one), put the cursor on the last position of the list "ProDOS Directory", (use UP ARROW. "ProDOS Directory" is always at the bottom of the list, no matter how many disk drives you have connected). Press OPEN APPLE - RETURN and you may now write your path name, just as you would have done when using AppleWorks 2.1 (fig. 1)

3. To keep "standard" Data Base "original" layout

When you start to create a data base (or at a later occasion), go to the Report Menu (OPEN APPLE - P) and make a new "Tables" or "Labels" report format. Name it "Original" or "Standard". Don't make any changes to this format. "Escape" back to the Data Base. You are now able to move the categories about to suit your intentions. In case you should like to start all over again, all you have to do is to go back to "Standard". You can have as many as 20 different reports for every data base, to be compared to only 9 with AppleWorks 2.1.

4. To move records from one database to another and let data change places.
Example: Change the layout in the original database to get it the way you want to have it in the new database. Copy or Move data to the new database using OPEN APPLE-C/M. The records will appear in the same order as in the original. In earlier versions of AppleWorks the order of records would have returned to the original if you had tried this procedure. Studying item 3 above may help you.

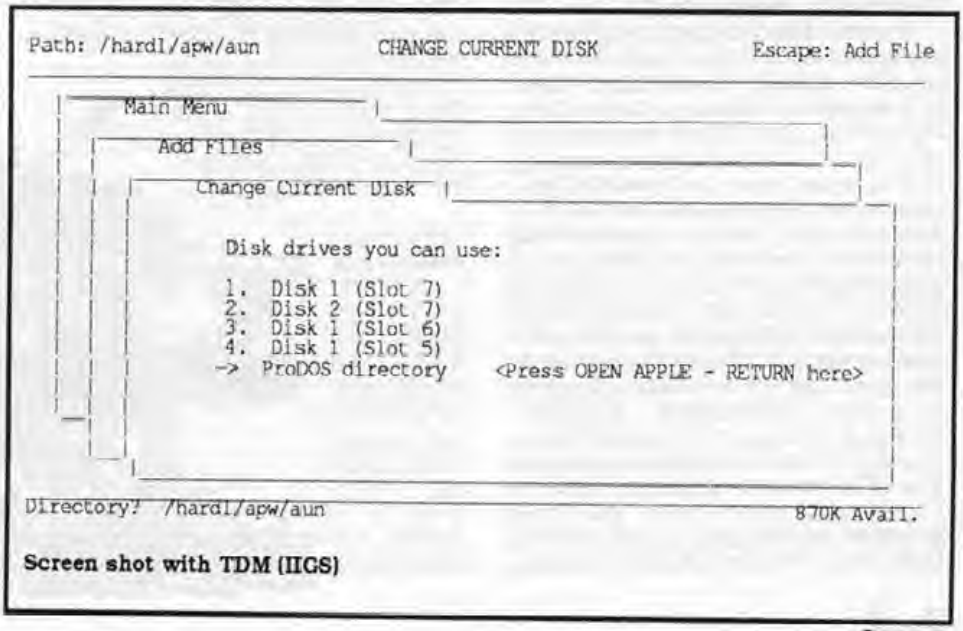
5. Delete empty subdirectories with AppleWorks 3.0.

Subdirectories can't be deleted the way it was done in earlier versions of AppleWorks. If you try to select a subdirectory with RIGHT ARROW (to delete) you get an ERROR notation. You only *open* a subdirectory if you press RETURN at the same time as you point to a subdirectory. How should it be done, then? - By pressing OPEN APPLE-RIGHT ARROW you will mark all files on the desktop (note item 1. above). Remove the pointers from all files except the subdirectory and press RETURN. The empty subdirectory will be deleted.

6. Is this the complete list of "Undocumented commands and hints"?

NO! On the other hand, AppleWorks 3.0 is the best thing that happened in the Apple II world since AppleWorks!

Original idea and compilation:
Dave Gair, A.P.A.
Rearranged and additional text:
Andreas Wennborg, AUG Sweden.
Translated by *Paul Mellid, AUG Sweden.*



Screen shot with TDM (IIGS)

A2-Central on Disk

Peter Stark looks at the disk version of this excellent magazine devoted to the Apple II computer

Introduction

Of the various Apple-related magazines that I read regularly, A2-Central is probably my favourite, and I always look forward to the next issue. Since February 1989, A2-Central have also been publishing, in parallel, a monthly series of supplementary 3.5" disks (/A2.ON.DISK.....). In this review, I shall discuss the first nine disks issued in 1990, so as to try to give you an overall impression of this series.

Regular features

Certain items appear on each disk. These are: (a) an Editor's introduction, which discusses the contents of the disk; (b) a file containing the same text as on the corresponding paper copy of A2-Central; (c) a text-display/menu program called 'Windows'; (d) a directory (NONVISUAL.TOOLS) containing files that provide spoken output from text files if you have a speech synthesiser; and (e) ProDOS 8 and BASIC.SYSTEM.

In addition, the disks always contain a PROGRAMS directory, and another called MISC.GOODIES, the contents of both being different every month. As mentioned below, the disks almost always include several further items, varying from month to month.

A2.ON.DISK contents during 1990 (January to September)

Several of the A2-Central disks have contained quite major programs. Examples during 1990 have been: DB.Master; Nexus; TutorTech; JumpStart; and UtilityWorks GS. Some of these were demonstration versions, but in most cases sufficient of their capabilities had been retained for them to be genuinely useful. A good number of smaller (but still interesting) programs have also been provided during 1990. These include: Kidmail (which allows any Apple II to be used as a local message centre); a fractal program for the Apple //e; a word-search program; a virus protection program; Addressbook; and a couple of impressive demonstrations for the Apple IIGS. For IIGS owners, quite a number of CDA's and NDA's have also been supplied, as well as a couple of INITs (and also INIT MASTER, which enables you to activate or deactivate INITs and desk accessories). A limited number of games have been provided on the disks, including: a version of Othello; an Eamon Master and a sample Eamon game; the last three parts of a five-part interactive adventure; and Flobynoid (an Arkanoid-like game).

Several other utilities have been supplied on the A2-Central disks during 1990, including: Shrink-It (three successive versions, plus the IIGS version [GSHK]); Squirt; List (a file viewer); various SCSI utilities; a program that enables //e and //c users to view IIGS 'PIC' graphics (in DHR mode); and an add-on 'INFO' command for BASIC.SYSTEM which allows you to test or change various attributes of files. Several interesting macros for use with AppleWorks have also appeared on these disks, as have some AppleWorks patches.

Two families of fonts (Clairvaux and Wall.St) were also provided.

Besides programs, the A2-Central disks often contain text files of various kinds. Some of these are Real Time Conference reports (participants during 1990 have included people concerned with HyperStudio, Switchmaster, Publish-It! 3, ProTerm, and the National AppleWorks Users Group), whereas others are reports on events such as Applefest. These reports often give interesting impressions of the personalities involved, as well as information about recent or forthcoming products. From time to time, useful updates of Apple Technical Notes are also included (in 'shrunk' form).

Overall comments

The A2-Central disks are always filled almost to capacity (on average, using 1598 of their 1600 blocks!). 'Windows' has steadily become more versatile, and it currently allows you to display or print out text files, to display graphics files of various types, to launch BASIC and SYS (ProDOS 8 System) files, to scan text files for selected strings, and to thread your way through directories. The text-talking software included mainly for the benefit of visually impaired people is another thoughtful feature. The text files on disk which correspond to the printed A2-Central edition each month will not be useful to everyone, but it is worth remembering that you can search through the disks easily and quickly, with the help of FASTDATA Pro, if you want to look for information on a particular topic.

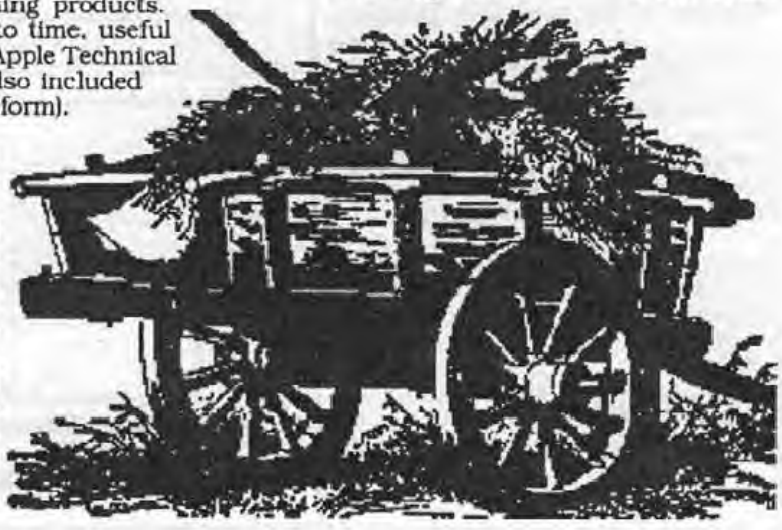
For IIGS owners, these disks are really excellent value for money, as they contain a wealth of useful and interesting information, discussions, utilities, demos., and other programs. People with other Apple II computers will not be able to use all of the material provided, but it is still worthwhile to think of trying a year's subscription. It is clear that A2-Central are doing their best to provide a wide selection of interesting and useful programs and information on their disks, and from time to time they make a special effort to produce a disk mainly directed at //e and //c users. These monthly disks have turned out to be much more than a complement to the paper edition of A2-Central, and I recommend them with enthusiasm.

A2.ON.DISK: Details of the costs of these disks can be obtained from:

A2-Central
P.O. BOX 11250
Overland Park
KS 66207
U.S.A.

As an example: a 1-year subscription to A2-Central (paper copy plus disk) costs $84. (The paper copy alone is $28). Annual disk sets can be bought separately for $60. See also the advertisement for A2-Central on page 13 of this magazine.

Peter Stark



AppleWorks GS 1.1

Fredrick Greatorex receives his AWGS update with bated breath ....

I was sick with excitement when my package containing the update from Claris arrived in the post. In a break with tradition (inspired by my last AWGS upgrade) I read the manual and followed the instructions. I was rewarded with a twenty minute install time (probably less if I hadn't also been ironing a shirt for work the next day).

Added features:

According to the manual the following features have been added:

1. Faster loading...each module loads in approximately 8 seconds—and improved screen updating that allows you to scroll more quickly through your documents. The modules do seem to load just a bit faster, the screen scrolling is faster, but not very smooth.

2. AppleWorks GS 1.1 runs under the new Apple IIGS System 5.0 software, allowing you to take advantage of the new System features.

3. Enhanced memory utilisation and compatibility with 1.125 megabyte Apple IIGS computers (ROM 3[revision?]).

4. Improvements to the Spreadsheet Result in faster recalculation.

5. AppleWorks GS 1.1 allows you to open files created with AppleWorks 3.0 and earlier AppleWorks versions. [Am I missing something or didn't do this before, like AWGS 1.0?]

6. A new graphic Control Panel that makes it easier... [the graphic control panel that came with GSOS 5.0]

7. You can create accents and diacritical marks used in foreign languages as well as a variety of special characters.

In reality, you use the option key in conjunction with another key to add accents and diacritical marks (circumflex, umlaut and tilde) over the character that was last typed.

Option+`= grave accent(è)
Option+e= acute accent(é)
Option+i= circumflex(ê)
Option+u= umlaut(ë)
Option+n= tilde(ñ)

On the screen, the accent/diacritical mark appears to the right of the character. For 'special' characters, the option key is used to access characters in the font that you normally don't get (if you have ever used Font Doctor it is all those extra characters that you couldn't get at except by typing in the ASCII code), provided that these special characters are edited into the font you are using. For example Option+3 gives the £, Option+7 gives ¶. If these characters are not in your font you can used Font Doctor (in the GS download library on TABBS) to create them by entering Option and the key you wish to edit.

7. A database conversion utility allows you to easily convert previous version database files for use with AppleWorks GS 1.1. This is on the Utilities Disk. I haven't used this as yet, but AWGS 1.1 will not read in older AWGS DB files unless you convert them over (a little screen pops up and tells you to use your convert utility when you try and put them on your desk top)

8. A memory test utility enabling you to test your memory expansion board before using AppleWorks GS. Yet another little gem I haven't run, but I did run the Claris memory test a couple of weeks ago and all was fine then...

9. A custom ImageWriter printer driver that improves printing speed. It looks to be the ImageWriter.CL driver that some of us know and love. I haven't noticed that it was any faster.

10. An empty database file that makes it easy for you to create 1-inch mailing labels. This even has directions on how to use this in the update manual. My mailing labels are just over an inch and a half so I haven't bothered with this yet.

11. Contains, Begins and Ends functions have been added to the Database and Spreadsheet. A Spreadsheets are a mystery to me. Databases somewhat less so. I haven't been able to figure out why I should want to use a Spreadsheet, and the most complex formula in my database converts Kilometres to Miles.

12. Special palettes that improve the importation of colour graphics. These are the same palettes that came with AWGS 1.01 for Deluxe Paint, Paintworks and Paintworks gold, and TopDraw.

Installation

The installation instructions talk you through step by step of the installation procedure, including telling you how to update AWGS, and/or the system files and/or the dictionaries,etc... If you use a Unidisk 3.5 (I do, a leftover from my IIc) remove that driver from the drivers folder before you start, because the installer deletes it when it updates the drivers.

Cosmetic differences:

AWGS 1.1 uses colons to separate the disk,folder and file names in a pathname. The 'File' menu also seems to be more narrow than before. You can also delete multiple files at once (or could you do this before, and I was too thick to pick up on it?) by holding down the Apple key and while clicking files.

A nice touch was added to the manual (that, again I may have not notice in previous versions) is a list of files that may be deleted off of the AWGS System disk to save space, or make space for other things. It names the files, file size, and gives the consequences of removal. Oh, and the little 'beach ball' icon used for time consuming operations spins at varying rates of speed (undoubtedly, worth the cost of the upgrade)

Top and Bottom Margins at last! Well, yes. Sort of, to make margins in the word-processing module you simply insert a blank line or two or three (up to six, depending on font size) into a header or a footer (my why didn't I think of that!?).

The database supports a 'concat' function that mushes two or more fields into one. The manual also gives tips on organising databases so they can be used for more than one function (i.e. print mailing labels, or just run a report on birthdays), and using label fields (it took me a while to figure this one out on my own)

The one thing that caught my eye in the Spreadsheet section is that the spreadsheet will generate a chart as an AWGS graphics document. The charts (except pie charts) do not contain tic marks or values for the intervals along the horizontal and vertical axes. If you wish, you can easily add these using the graphics tools.

The Manual

All in all, the manual is the same Claris easy to understand that is great for novices, and a bit slow for the more experienced. After installing the new dictionary, and the upgrade, my spell checking is working again (it died after I installed GSOS 5.0). The manual also clears up some 'fuzzy' parts of the original like how to crop text around a graphic in the PageLayout module (well, it was a bit fuzzy for me the first couple of times I tried it!)

Fredrick Greatorex

TimeOut MacroEase

Harvey Nyman continues his look at the TimeOut additions to AppleWorks

Introduction

In the August issue of Apple 2000 I gave my impressions of TextTools, one of the latest TimeOut add-ons for AppleWorks 3.0. Since then I have been trying MacroEase which adds five TimeOut applications, some new macro applications and 200K of sample macros. It is the AppleWorks 3.0 replacement of Macro Tools and Macro Tools II. As usual with the current Beagle Bros products both 3.5" and 5.25" (four sides) discs are included.

New Applications

To use the package you must already have AppleWorks version 3.0 with UltraMacros 3.0 (or later) installed. The four new TimeOut applications are Debug, Easy Launch, Primer ref, Reference, Status and Ultralock.

Debug is a programming aid for writing and debugging macros. You can examine the state of sleep macros, the onerr status, and vital statistics of the current macro table, as well as viewing the current numeric and string variables, and alter the values directly. Included is a very useful facility for seeing all the macro names in use and viewing them in the original order of the macro file, or rearranging them alphabetically.

Ultra Reference and **Primer Reference** are pop up indices for two books - the National AppleWorks User Group publication 'The UltraMacros Primer' (an excellent review by Mark Munz of programming with Ultramacros) and the programs latest manual.

UltraLock allows a macro set to be locked so that it can not be listed, but the process is not reversible! For everyday use one that could be removed from the list without tears.

File Status gives basic data about desktop files - the file number in the desktop index, the file size and type, and the status - new, saved, unchanged or changed. The status can be changed by an OA-C command in the module.

Easy Launch makes starting a Task File easy from any desired disk.

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Printers Devil™ Software
P.O. Box 1828
Easton, MD 21601

Macro applications

The disc includes a number of applications written in UltraMacros, ranging from a macro task file which gives some desk top publishing facilities, budgeting and cheque writing facilities, to a macro tutorial which gives a step by step demonstration of macro writing. Although you may not need the facilities of all these applications they are all valuable in showing how UltraMacros can be used for any task you need. All of them include documentation on disc.

Sample macros

The many macros included which are either ready for immediate applications or like those that enable you to use AppleWorks' thermometer of progress in long operations for your own purposes. There are several macros enabling the user to create his own nested file card menus like those in AppleWorks. Features which were found in AutoWorks and SuperMacros not directly available in UltraMacros, are replaced by macros in this set.

The keen user of AppleWorks and Macros will find this disc a treasure trove of goodies. It is the sort of disc that will repay browsing through the files - a number of them are not mentioned in the slim manual. Their greatest value may be the lessons they offer in macro techniques which can be used in your own macros. My own TimeOut Menus have now spilled over to a second menu. Not all of the applications are used frequently, but UltraMacros I would regard as an essential addition for any AppleWorks user and with this disk as a tutor almost any task could be tackled.

❑ The Timeout modules may be obtained from Bidmuthin, MGA, ClockTower and many other dealers.

MacroEase may also be obtained directly from Beagle Bros. or from NAUG. At the US price of $39.95 it rates 🍎🍎🍎 for value.

Harvey Nyman 🍎

info

Product : TimeOut MacroEase
Publisher : Beagle Bros.
Available from :
Bidmuthin
214 Kenton Road
Harrow
Middlesex HA3 8BT
081-907 8516
Price : £ p.o.a

Value : 🍎🍎
Performance : 🍎🍎🍎🍎
Documentation : 🍎🍎🍎

Nexus

Peter Stark reviews this entry to the Hypermedia stakes

Introduction

'Nexus' means a link, or a connected group, and is therefore a perfect name for the exciting new program written by Tracy Valleau at dataSmith. Essentially, this is a hypermedia product which allows you to link text or Super Hi-Res graphics documents to other (text or SHR graphics) documents or to sound files. One of the major attractive features of Nexus is that you only need text files (or 640 mode graphics files). Unlike some other hypermedia programs, no special 'cards' or 'stacks' need to be created. The sound files, if you use any, must be of filetype $D8.

What is supplied, and what you need

Nexus is supplied on a 3.5" disk, is unprotected, and can easily be copied to a hard disk. An Apple IIGS with at least 1.25 meg of memory is needed, and the program has to be launched with System 5.0.2. The 19-page manual is written in a helpful and generally clear style (though I did find several points where more information would have been desirable; these are discussed later). The manual also includes instructions for a simple do-it-yourself demo, whose aim is to help you learn how to use Nexus.

Link-sets

By linking together two or more text, graphic, or sound files, Nexus builds up 'link-sets'. Linking of a given word in a text document to another file is a very simple process. You merely choose 'Add a Link', position the resulting box cursor on the word that you want to link, and click the mouse. A dialogue box appears, and you then double-click on the name of the file to which you want to link. If you wish, you can view the selected file before you actually establish the link. The same simple sequence can be repeated, so as to link other words in your host document to other files. A similar very easy procedure is used to link selected areas of a graphic to a different file (which can be another graphic, or a text document, or a sound file). Sound files can be tried at different playing rates to see which gives the best results. At any time after the various links have been set up, double clicking on a linked word (or a linked area in a graphic) will rapidly load and display the file to which that word (or area) had been linked. This is rather like browsing through the pages of an encyclopaedia, except that with

InSyder

slot-in **hard disk card for the Apple //**

InSyder simply plugs into a standard slot in the Apple //e or IIGS – there's NO power supply replacement, NO noisy fan and NO awkward cables! InSyder is fully compatible with GS/OS, ProDOS and the major operating systems. And with direct hardware access and full disk caching, InSyder supplies the performance demanded by the serious Apple user.

← *ACTUAL SIZE!*

Available in 20 and 40 Megabyte capacities, InSyder also provides a full feature SCSI port, supporting external devices. You can even share an external hard disk with up to seven other users. An optional Printer Adaptor also allows you to connect a parallel printer without losing valuable slot space!

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InSyder 20 Megabytes – £488.00 InSyder 40 Megabytes – £588.00
(Prices exclude VAT)

CIRTECH (UK) Limited, Monksford Stables, Newtown St Boswells, MELROSE TD6 0RU Telephone (0835) 23898 Fax (0835) 22471

VISA

Nexus your 'pages' are text documents or pictures displayed on screen, and you have the additional dimension of sound (speech, music, etc.). An important point is that the linking of words in a document is unique to that document. This means that you can link a given word in one host document to one particular file, and in a second host document the same word can be linked to a different file. Note however that a given word or graphic area can only be linked to one file: clicking will not both play a sound and show a different document. Incidentally, earlier versions of Nexus did not include the option of using sound: this addition is a very useful one.

Another significant point is that Nexus does not change your files in any way. What actually happens is that Nexus creates its own special files which hold information about where the linked files are, and the nature of the links. Files can be changed without the user needing to re-link them, and linked words will still be found, regardless of the changes made to the text. Links are also remembered even if a file has been moved or renamed; Nexus has methods for helping you to find renamed or relocated files so that links to them can be activated.

Other options allow you to see which words or graphics areas have been linked to other files, or to see lists of the files or linked words in a given link-set. However, I noticed that the Word List had an occasional tendency to include words which were in fact not linked in any document. This occurred, for example, when I made unsuccessful attempts to link a word in an AppleWorks document to another file (see below). Also, there have been rare cases where 'Show Links' failed to highlight a linked word. Links can be removed, if no longer required. Nexus allows text or graphics areas to be copied to the clipboard, so that they can be pasted into other programs such as AppleWorks GS at a later stage. There is also an intriguing 'expanded' mode of retrieval, in which Nexus will respond to a target word even if it is not linked in the document which is on screen, provided that the word is linked in a different document. Any given link-set can contain up to 1000 linked files, and some 6000-7000 words can be linked. Up to eight document windows can be open at any one time, provided that your system has sufficient memory. As many as 45 words per text document may be linked in context in a single host, and up to 16 graphic areas may be linked in a single graphic.

Additional points

Although the manual says that Nexus will read AppleWorks 3.0 files (adding that they will not be formatted properly), my experience was a little more complicated. By trial and error, I found that AppleWorks files would only respond to Nexus links if these files were already represented by windows on screen. Clicking on the relevant word in the host text file displayed the AppleWorks file in such cases.

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P.O. Box 1828, Easton, MD 21601

However, AppleWorks files which were on disk, but for which no corresponding windows currently existed, could not be accessed. Windows had first to be created from them, via the File List. My attempts in the reverse direction - that is, to link from AppleWorks documents to other files - failed. All that happened was that an error message appeared, and the word which I had unsuccessfully tried to link was added to the Word List; not a very satisfying result. In contrast, Nexus has worked well with all the text files that I have used. Results with SHR graphics and ($D8) sound files have also been good. Slightly confusingly, my manual refers to 'the "Nexus" menu'; presumably it means the "Utilities" menu.

By copying the NEXUS.READ system file and any link-sets and associated files (with changed prefixes) from your Nexus disk onto a new disk, it is possible to create a read-only disk which is suitable for use by people who do not own Nexus yet. There is also a useful NEXUS.HELP file which can be accessed via the Apple menu.

Overall comments

Nexus is delightfully easy to use, and for the most part works smoothly and well. The fact that you only need standard text, graphic, and sound files is another aspect which helps the user, as he or she can therefore use many existing files, rather than needing to create all the files specifically for Nexus. The manual is useful, but it needs to be polished up in a few places. The program would be even better if its abilities to work with AppleWorks files could be improved. There seem also to be one or two small residual problems, for example as regards the list of linked words. These are relatively minor points, however, and do not detract seriously from the usefulness of Nexus.

Like HyperStudio, Nexus is an excellent hypermedia program, and one which could well become popular. The two products are sufficiently different from each other to be thought of as complementary, rather than as direct competitors. If you have an interest in hypermedia, I would recommend that you should consider buying both HyperStudio and Nexus, if your money will stretch far enough. Both programs are powerful and versatile, and each has its own individual strong points and special features. HyperStudio works in terms of cards and stacks, and offers a growing range of powerful facilities. Nexus employs files of standard types, grouped in link-sets, and is quick and easy to use.

Both of these products have many potential areas of use and interest - which include education, training, information and display uses of various kinds, tests, quizzes, and games. Like HyperStudio,

Nexus could well give you a lot of enjoyable use, and should also test your ingenuity and imagination as regards possibilities for new applications.

info

Product : Nexus
Publisher : dataSmith
Available from :
Golem Computers
1111 Ranchu Conejo Blvd
#407 Newbury Park
California 91320
Price : $ p.o.a.

Value : ♦♦♦♦♦
Performance : ♦♦♦♦♦
Documentation : ♦♦♦♦♦

Hard Disks (non SCSI) for the Apple II

Eric Sausse gives us the definitive guide to those non-standard ICE and Symbiotic disk drives

Introduction

Traditionally an expensive item beyond the reach of many personal users,the older (non-SCSI) hard disks are now almost in the 'obsolete' category and consequently their resale value has fallen in recent years. Each manufacturer had their own way of interfacing these drives and consquently no measure of standardisation was achieved,whereas with SCSI systems, most drives will work with Apple II with a standard SCSI interface card.(in UK mainly Apple or Cirtech cards). However,the older drives are still very useful (except for ProDOS 16 /GS/OS on the IIgs model), and in my opinion, a hard disk is the single most useful addition to any system.

The most common units are Symbiotic & ICE which both use Rodime drives & Konan controller boards, although the interface cards & utility software are completely different. Rodime drives are widespread and can often be picked up for a song at auctions etc. Many PC's including early IBM's, ICL etc. etc. used these drive . Lots of early micro's are scrapped wh n the hard disk (often Rodime) is perfect y OK, so it pays to look inside that 'b x of junk' before writing it off as useles . Unfortunately ,Konan boards are n t so easily found therefore this information is mainly useful to someo e wishing to replace a faulty drive.

Operating Systems

ProDOS is by far the most useful & friendly operating system on the Apple II and choosing a drive which does not support it is not advised. ProDOS is particularly relevant to hard disk use in that very large volumes are supported. DOS 3.3 is normally restricted to a volume size of about 130k (the capacity of a floppy disk) but some hard disks allow the creation of larger volumes. Some hard disk utility software is fussy about which version(s) of CP/M may be used. Early versions of Pascal are OK but I can't speak for later releases.

When choosing a hard disk system you should be aware of it's suitability for your own needs & don't waste money in buying the wrong interface card etc.

Eric Sausse

❑ Eric Sausse runs a small company which specialises in supplying both new and second-hand hardware. His speciality is Apple Sales and Spares and he holds stocks of all those bits and pieces you cannot find elsewhere.

Eric Sausse
ESCO Computer Systems
115 Burringham Road
Scunthorpe, South Humberside
DN17 2DF Phone: 0724-855795

ICE HARD DRIVES

SOFTWARE 'HOUSEKEEPER V3.02' claims to handle DOS 3.3,CP/M,Pascal & ProDOS 1.0.1,however I have never been able to use ProDOS with this version.
'HOUSEKEEPER V 4.1' works ok with Prodos 1.0.1
'HOUSEKEEPER V ?? I have heard that a later version works with later ProDOS releases.

HARDWARE To the best of my knowledge, all ICE interface cards support ProDos
ICE hard disks use the same components as the most common Symbiotic drives, ie Konan controllers & Rodime drives (RO100/RO200 series)They can be easily converted to Symbiotic as follows :

1) Remove DFX13 eprom & replace with DFX 11A eprom (on the Konan controller)
2) Remove' drive type eprom' (RO202/RO204 etc) & replace with the appropriate Symbiotic eprom (see Symbiotic drive table)
3) Locate the sector size jumper on the Konan controller & move the jumper to select 256 (ICE drives use 512).
4) Use a Symbiotic interface in your Apple

NOTE: Some ICE drives have a 'write protect' switch at rear of case (an LED lights on front when 'write protected') if you have recently inherited one of these drives & you are unable to write to the drive then this may be the cause.

HAL Support DOS, Pascal,CP/M, ProDOS. Some drives have built-in network hardware, supporting up to 4 Apples

XEBEC/SIDER/MITAC are basically the same drive but may need different software. Some interface cards support ProDOS.

INTEC Not many of these around, mainly 5 megabytes

REAL No info (I have never seen one of these)

CORVUS No support for ProDOS. These were probably the first hard drives available for the Apple. They are large & very heavy

APPLE PROFILE Available as 5 or 10 megabytes & may be used on Apple II & III & Lisa. These are the only drives I know which can be' recognised' by booting from an ordinary floppy disk(ProDOS). I have no experience with these other than with ProDOS, although I know they support Pascal also. Interface cards for Apple II are hard to find. The drive inside is a Seagate. Profiles are very slow to boot, having a lengthy self test procedure. Parts are hard to find and repairs expensive.

GENERAL NOTES:

A) Because of the wide availability and low price of used Rodime drives, Symbiotic and ICE are the best long term prospect.
B) With the exception of 'REAL' drives, I have software for all the drives mentioned.

	CAP'TY	SYMB PREFIX	DJ 1	CONTROLLER /EPROMS DJ II	CODEAN	QIC-02	HEADS	GENTEST TRACKS	FORMAT TRACKS
RODIME RO 100 Series									
RO101	3		RO100 DFX11A	RO1002 DFX11A			2	187	192
RO102	6		RO100 DFX11A	RO1002 DFX11A			4	187	192
RO103	12		RO100 DFX11A	RO1002 DFX11A			8	187	192
RODIME RO 200 Series									
RO201	5.25	ARO	RO200 DFX11A	RO2002 DFX11A	CD200	QT200.3	2	315	320
RO202	10.5	BRM BRO PRO PRT	RO200 DFX11A	RO2002 DFX11A	CD200	QT200.3	4	315	320
RO203	15.75		RO200	RO2002	CD200	QT200.3	6	315	320
RO204	21	CRO SRO SRT	DFX11A RO200 DFX11A	DFX11A RO2002 DFX11A	CD200	QT200.3	8	315	320
RODIME RO 200E Series		QRO		RO200E	CD204E	QT200E3	2	635	640
RO201E	10.5	QRT		DFX11A					
RO202E	21	TRO TRT		RO200E DFX11A	CD204E	QT200E3	4	635	640
RO204E	42	DRO URO URT		RO200E DFX11A	CD204E	QT200E3	8	635	640
RODIME RO352 (JUNIOR)	10	KRO LRO RRO RRT	RO351 DFX11A	RO350 DFX11A	CD352	QT350.3	4	301	306
SEAGATE ST506	5	SEA	D505 DFX11A	D505-2 DFX11A			4	148	153

SYMBIOTIC HARD DISKS

KEY : CAP'TY Capacity in Megabytes

PREFIX Code printed on Symbiotic serial no. plate on rear of case. If the drive has been replaced by one of different capacity then this will be misleading.'

CONTROLLER/EPROMS. Symbiotic drives have various controllers fitted inside the case.The majority are' Konan' (David Junior' or David Junior II). Later drives may have 'Codean' or 'Qic' controllers'. The various eproms fitted must conform to the above list .

HEADS The number of read/write heads used. One disk platter would use two heads,four would use 8 etc etc.

GENTEST TRACKS. Use this figure when using Symbiotic Gentest software.

FORMAT TRACKS. Use this figure when using Symbiotic Format software.

Note: The spare tracks are utilised by the drive to take account of any bad sectors.(even new drives often have several bad sectors).

DRIVE WITH UNKNOWN CAPACITY Run Gentest software & specify a high number of heads & low number of tracks. Errors will occur on non existant heads (heads are numbered starting with 0). When the number of heads is established by this method, increase the number of tracks (as per the above table) until no errors occur. By consulting the table, you should now be able to identify the drive & it's capacity.

Note 1 Gentest software uses Hex notation to display track numbers.

Note 2 If the drive is faulty the information may be misleading.

Note 3 If the last platter is faulty then reducing the number of heads during formatting will 'kid' the drive in to recognising a lower capacity.

Note 4 Similarly,if there are errors on high track numbers,then specify a lower number & format accordingly for an error-free drive (of lower capacity)

ALL DRIVES USE 32 SECTORS PER TRACK (256 BYTES PER SECTOR)

SYMBIOTIC INTERFACE CARDS (Identified by number printed on eprom)

CARD	SYSTEMS SUPPORTED	SOFTWARE REQUIRED
4.9	DOS/PASCAL/CP/M	V 3.12A
5.3	DOS/PASCAL/CP/M	V 3.12A
7.2	DOS/PASCAL/PRODOS	V 2.1
6.3	DOS/PASCAL/PRODOS	V 2.1

NOTES

Version 2.1 supports ProDOS 1.1.1 but can be updated to use ProdOS 8 by using V3.1 software (the drive must first be configured using V 2.1, then boot V 3.1 from floppy drive to automatically update). Then copy ProDOS 8 to hard disk in place of earlier ProDOS

NOTE 1 Diagnostic software (V 2.7) works with all cards/drives
NOTE 2 The 5.3 & 6.3 card can be used with Symbiotic network equipment. With all switches off, the 6.3 card operates as a stand-alone unit.

SOFTWARE NOTES

1) After installation on the hard drive, utility software V2.1 & 3.1 require a password to access the utilities menu. For a newly configured drive use OPSYS. The password may then be changed to one of your own choosing. If you forget your password, try SYSOP.
2) When a ProDOS volume is created with Symbiotic software (2.1 & 3.1) you are given the option to copy a ProDos floppy to the volume (you need at least one copy of ProDOS on the hard disk) . However if the volume is greater than 2 megabytes the option is denied.

If you need ProDOS on a large volume or wish to have only one ProDOS volume on the hard disk (the most sensible option) do as follows :

a) Create a minimum size ProDOS volume of 140k (name it 'TEMPVOL' & copy a ProDOS floppy to this when prompted to do so. (the ProDOS User Disk with 'Filer' is ideal).
b) Create the large volume (name it 'MAINVOL') which will eventually be your main volume.
c) Create a TASK (name it TEMPTASK) & put both volumes into this.
d) Boot the hard drive & select 'TEMPTASK'. This will then boot into the volume 'TEMPVOL'
e) You will now have access to 'Filer' so use this to copy ProDOS, Basic System & Filer to' MAINVOL'
f) Reboot the hard disk & enter 'Utilities'
g) Delete 'TEMPVOL', you will be informed that 'TEMPTASK' must also be deleted - this is OK
h) Create a new task & put 'MAINVOL' into this.
i) Reboot the hard drive & select the new task. This will then boot into the volume 'MAINVOL'
j) Use 'Filer" to copy the rest of your software to 'MAINVOL' on the hard drive.

Wet Disks

❑ This comes courtesy of TI&IE, Teacher Idea & Information Exchange, P.O. Box 6229, Lincoln, NE 68506, Jim Carlisle, publisher:

DEALING WITH WET FLOPPIES

WHAT NOT TO DO - If you get a 5.25 inch disk soaking wet don't try to dry it with a hair dryer. My personal experience indicates that this tends to warp the disks making them unfit for use even though they end up bone dry. I can attest to the fact that you don't want to lay a wet disk out for the sun to dry. Once again, I found my dry disks LESS than perfect. They tended to be shaped like frisbees.

WHAT TO DO - Don't panic. All is NOT lost. I had to deal with at least 100 soaking wet data disks and program disks recently, and in the end I lost ONLY THREE. Use a soft towel or cloth and carefully dry off the outside of the disk. Lay your disk<s> on a towel. I used a small fan to lightly circulate the air over the disks. BE PATIENT!! Most of my disks dried out in about 48 hours, although some took just over 3 days. I occasionally "wiggled the drying disks" by sliding the hubs back and forth. If the disk dries properly you should be able to eventually rotate the disk by carefully turning the hub.

In the case of the data disks, once they had dried out I copied the information to new disks and discarded the old ones. HOWEVER, I had "copy protected" software which I was unable to copy and those disks are STILL OPERATING without a catch so it might have been perfectly safe to have continued to use the dried out disks.

Pete Crosta
NAUG Staff

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Installing GS/OS on SCSI Hard Disk Drives

The following information was taken from Tech Tidbits, a publication of Technical Support East, Apple Computer, Inc.

Installing GS/OS

Correct installation of the GS/OS operating system on an Apple IIGS hard disk drive can eliminate many common problems with GS/OS. The following instructions include the procedures for both single- and dual-drive systems. They also include information about installing drivers and about initializing both ProDOS- and non-ProDOS-formatted hard disks.

Equipment Requirements

To perform the installations outlined in this article, you must have the following equipment:

❑ An Apple IIGS personal computer with at least 512K of memory and mouse, keyboard, and monitor

❑ The Apple GS/OS operating system Version 5.0.2 (or greater) • An Apple SCSI hard disk drive

❑ An Apple SCSI interface card

❑ An Apple 3.5-inch floppy disk drive (two 3.5-inch drives are recommended)

❑ Two blank 800K floppy disks

Step I: Hardware Setup

Instructions for setting up the hardware are provided in the manuals that come with the hardware. Make sure you've done all of the following:

1. Installed the SCSI card in the Apple IIGS.
2. Connected the SCSI hard disk drive to the interface card.
3. Connected the Apple 3.5-inch disk drive(s).
4. Connected the monitor, keyboard, and mouse.
5. Checked the Control Panel settings. The slot that contains the SCSI card should be set to "Your Card," and the Apple IIGS should start up from Slot 5.

❑ The slots of the Apple IIGS are assigned to a list of devices that are used by the IIGS This limits the slots available for installation of new cards. Below is a list of slots and their default assignments as shipped from the factory:

Slot Device

1 Printer port on back of the IIGS
2 Modem port on back of the IIGS
3 80-column display for text screens
4 Mouse port
5 Smart port, used for 3.5-inch drives
6 Disk port, used for 5.25-inch drives
7 Your card

The default assignments allow only Slot 7 for inserting an SCSI controller card. However, the configuration of a particular user's system may provide other slots for the SCSI controller card. Here are some considerations:

❑ If there are no 5.25-inch disk drives attached to the IIGS, Slot 6 would be available for the SCSI card.

❑ If there are no 3.5-inch disk drives attached to the IIGS, Slot 5 would be available for the SCSI card.

❑ If no printer is attached, Slot 1 could be used for the SCSI card.

❑ If no modem will be used on the IIGS, this leaves Slot 2 available for the SCSI card.

In any of the above instances, be sure to change the Control Panel Slots assignment so that the slot containing the SCSI card displays Your Card. Once GS/OS is installed onto the SCSI hard disk, be sure the Control Panel Slots Startup item is set to the slot containing your SCSI card.

Note that SCSI ID numbers are 0 to 7, inclusive—and no two SCSI devices can have the same ID number. When you connect the Apple SCSI interface card to the hard disk, you must place the SCSI jumper on the pins under the number 9, giving the computer an SCSI ID of 7.

Step II: Software Setup

The two floppy disks that come with GS/OS are your master disks; you'll need a backup copy of each of them before you begin the installation process. Following are the disks and manuals that come with your software package: • Apple IIGS System Disk • Apple IIGS System Tools disk • Apple IIGS System Disk User's Guide • Apple IIGS System Tools manual

When you make the backup disks, give each of them a temporary name. (GS/OS does not allow two disks with the same name to be on the desktop at the same time.) After the backups are made, restart the IIGS with the backup disks and rename them; the Installer requires that the system disk be named SYSTEM.DISK and that the tools disk be named SYSTEM.TOOLS.

Driver Installation

GS/OS uses software drivers to support peripherals such as 3.5-inch disk drives and hard disk drives. Before proceeding to the installation of GS/OS, you must install the SCSI Hard Disk driver on the backup copy of SYSTEM.DISK.

To install the driver using a system with one 3.5-inch floppy disk drive, follow these steps:

1. Without turning on the hard disk drive, insert the SYSTEM.DISK into the 3.5-inch drive.
2. Turn on the IIGS.
3. You'll see the message, "Welcome to the IIGS." When an icon of the SYSTEM.DISK appears on the desktop, eject the SYSTEM.DISK, using the eject button on the front of the 3.5-inch disk drive, and insert the SYSTEM.TOOLS disk. An icon of the SYSTEM.TOOLS disk appears on the desktop.
4. Open the SYSTEM.TOOLS disk and run the Installer program.
5. At the top left of the window, there will be a line of text that says, "Disk to Update: SYSTEM.DISK." (If Disk to Update says SYSTEM.TOOLS instead of SYSTEM.DISK, eject the TOOLS disk and insert the SYSTEM.DISK.)
6. Click the disk button in the bottom right of the window.
7. You'll see SYSTEM.DISK listed after Disk to Update, and a list of drivers, applications, desk accessories, updates, and system configurations will appear on the left side of the window. Scroll through the list until you see SCSI Hard Disk and select it by clicking it once.
8. Click Install.
9. You'll see a dialog box indicating that files are being read and written. Then the Installer window reappears. Quit the Installer program.
10. Shut down the IIGS by choosing Shut Down from the Special menu.
11. You'll see a dialog box with several selections. Select "Turn off system power."
12. When you see the message, "You may now switch off your Apple IIGS safely," turn off the computer.

To install the driver using a system with two 3.5-inch disk drives, insert SYSTEM.DISK into Drive 1 and SYSTEM.TOOLS into Drive 2. You won't have to swap disks; all other screens, dialog boxes, and commands are the same as those described in the preceding instructions.

Step III: Hard Disk Initialization

The following instructions are for systems that have ProDOS-formatted hard disk drives, non-ProDOS-formatted hard disks, or new (unformatted) hard disks with one or two 3.5-inch drives.

Note that hard disk drives larger than 32 megabytes that will be used with a combination of ProDOS 8 and GS/OS must be partitioned. ProDOS 8 supports only 32 megabytes of hard disk space. Partitioning is explained in the Apple IIGS System Tools manual (page 17). After you partition the hard disk, follow the installation instructions for GS/OS (Step IV, page 33).

A. ProDOS Hard Disk Preparation Using One 3.5-inch Disk Drive

Follow these steps to format a ProDOS hard disk using a system with one 3.5-inch floppy disk drive:

1. Turn on the monitor.
2. Turn on the hard disk drive and wait

until it's ready.

3. Insert SYSTEM.DISK into the 3.5-inch drive.

4. Turn on the Apple IIGS.

5. "Welcome to the IIGS" appears on the screen. When the icons for SYSTEM.DISK and the hard disk appear on the desktop, use the mouse to select the hard disk icon.

6. Choose Initialize from the Disk menu.

7. A dialog box asks you to name the hard disk. Because the hard disk is already formatted with ProDOS, it has a name. If the existing name is okay, click Continue. If you want a new name, type it in and click Continue. (The new name cannot exceed 15 characters.)

8. Another dialog box appears, with ProDOS highlighted in the left column and 20MB highlighted in the right column. Click Initialize in the dialog box.

When the "Initializing" dialog box disappears, the hard disk drive initialization is complete; icons for the SYSTEM.DISK and the hard disk appear on the screen.

Proceed to Step IV, page 33.

B. ProDOS Hard Disk Initialization Using Two 3.5-inch Disk Drives

To format a ProDOS hard disk using a system with two 3.5-inch floppy disk drives, insert SYSTEM.DISK in Drive 1 and SYSTEM.TOOLS in Drive 2 before turning on the Apple IIGS. Follow the steps listed in the preceding section. Then proceed to Step IV, page 33.

C. Non-ProDOS Hard Disk Initialization Using One 3.5-inch Disk Drive

Follow these steps to format a non-ProDOS hard disk on a system with one 3.5-inch floppy disk drive:

1. Turn on the monitor.

2. Turn on the hard disk drive and wait until it's ready.

3. Insert SYSTEM.DISK into the 3.5-inch drive.

4. Turn on the Apple IIGS.

5. "Welcome to the IIGS" appears on the screen. The SYSTEM.DISK icon then appears on the desktop. A dialog box appears with the following message:

GS/OS does not recognize the file system on this disk (in device XXXXX).

Do you want to initialize it?

You're also prompted to type in a name for the hard disk. Type in a name of 15 characters or fewer and click Initialize. 6. A second dialog box appears, with ProDOS highlighted in the left column and 20MB highlighted in the right column. Click Initialize.

An "Initializing" dialog box appears; when it disappears, the hard disk initialization is complete. Icons for both the SYSTEM.DISK and the hard disk appear on the screen. Proceed to Step IV, below.

D. Non-ProDOS Hard Disk Initialization Using Two 3.5-inch Disk Drives

To format a non-compatible ProDOS hard disk using a system with two 3.5-inch floppy disk drives, insert the SYSTEM.DISK in Drive 1 and SYSTEM.TOOLS in Drive 2 before turning on the IIGS. Follow the steps as listed in the preceding section. Then proceed to Step IV, below.

Step IV: Installing GS/OS on the Hard Disk

Follow these steps to install GS/OS on the hard disk:

1. Eject SYSTEM.DISK and insert SYSTEM.TOOLS. Open the SYSTEM.TOOLS disk and run Installer. The Installer window will appear.

2. Click the Disk button until the name of your hard disk appears in place of SYSTEM.DISK to the right of Disk to Update.

3. A list of items that may be installed will be displayed on the left side of the window. Using the mouse, scroll through the list until Latest System Files appears and select it by clicking.

4. Click Install.

5. A dialog box indicates that files are being read and written. Then the Installer window reappears. Select SCSI Hard Disk and click Install. If you need other drivers, install them now in the same way.

6. After installing the drivers, quit the Installer program.

7. When you are returned to the desktop, shut down the IIGS by choosing Shut Down from the Special menu. A dialog box appears with several options. Select "Turn off system power."

8. When you see a message that it is safe to turn off the computer, turn it off. 9. Turn on the computer without inserting any floppy disks. "Welcome to the IIGS" appears on the screen, indicating that the computer is starting up from the hard disk and that GS/OS has been successfully installed.

Following these procedures exactly should clear up any GS/OS installation difficulties. Before you install applications, be sure to check with the publisher of your software to make sure it works with the GS/OS operating system.

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GS/OS 5.0 and SCSI Devices

TOPIC

I recently upgraded from GS/OS 4.0 to 5.0. I am getting a strange error message -- "SCSI DEVICE NEEDS TO HAVE DRIVER INSTALLED" – when starting up or reloading the desktop from a ProDOS 8 application. If I press RETURN, I can continue as if nothing is wrong.

I have tried various software fixes, including completely reformatting my 20MB hard disk under GS/OS 5.0 and reloading it from scratch, but I continue to get this error. Reinstalling GS/OS 4.0 fixes the problem, but is not a practical solution.

DISCUSSION

It is hard to be specific without knowledge of the exact procedures used during installation, or what type of hard disk is in use. However, the following are generally the reasons the error message is posted.

There is an option called "Install Everything Possible" in the GS/OS 4.0 Installer. If this option is installed, it is likely that the SCSI Hard Disk option gets installed as a part of the "everything possible" option.

GS/OS 5.0 uses the "Latest System Files" option to install the major portion of GS/OS -- GS/OS 5.0 does not have the "everything" option. This means that the "SCSI Hard Disk" driver installation must be selected independently of the System Files installation.

The "Apple IIGS System Software User's Guide Version 5.0" (Apple Part #030-1622-A) discusses troubleshooting in Chapter 9. Page 155 of that chapter states:

"SCSI device requires a driver. Please install the SCSI driver on boot disk and restart system."

When this message is received, it indicates that:

You've connected a SCSI hard disk, but the current startup disk (or "boot disk" in computer jargon) doesn't include the "SCSI Hard Disk update". Press Return to continue starting up. When the Finder desktop appears, use the Installer to add the "SCSI Hard Disk" update to the current startup disk.

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Apple IIGS: Hard Drive Speed is Limited by System Speed

TOPIC

Will a 29ms hard drive perform twice as fast as a 65ms hard drive if both are run on an Apple IIGS with the Apple SCSI card? In other words, is the hard drive the slower component, or the Apple IIGS with the Apple SCSI card?

DISCUSSION

The maximum data transfer rate for the SCSI bus is 1.25 MBytes per second. If the disk accesses the data faster than that, it is not apparent to the user.

The determining factor for data transfer is system overhead. In this case, the system is the slower component.

System overhead consists of: operating system timings, interface timings, and the interleave factor for the disk (which is 3 to 1 for the Apple IIGS). If the 65ms drive is waiting for the Apple IIGS system, then changing to a 29ms drive will probably not increase performance.

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Apple IIGS: Composite and analog video

The Apple IIGS has two video ports: an RCA phono jack and a 15-pin D-Type connector. An EIA-standard composite video signal (2.0V white, 0.75V black, 0.0V sync., 75-ohm impedance) is available from both connectors. This composite signal drives many monitors such as the AppleColor Composite Monitor, the Apple Monochrome Monitor, and a TV unit with an RF modulator. While composite video monitors can be used with the Apple IIGS, they don't fully render the 320 x 200- and 640 x 200-pixel color graphics potential of the new system.

The 15-pin connector analog RGB signals provide full color graphics display capability. Note that the Apple IIGS outputs analog, not digital, RGB signals. The designers preferred the unrestricted character of an analog signal for the ability of the Apple IIGS to support 4096 colors. Apple offers a new platinum Apple Color RGB Monitor for the Apple IIGS. Other analog RGB monitors known to work with the Apple IIGS include several models by Hitachi, Panasonic, Sanyo, Mitsubishi, Conrac, and Commodore.

To check if your monitor is analog RGB, consult the manual. Check the pinouts before connecting the monitor to an Apple IIGS to make sure your monitor is compatible with pins 7 and 8. The Apple IIGS's 15-pin RGB video signals are as follows:

Pin	Signal
1	Signal ground (Red)
2	Analog RED with sync
3	Composite sync
4	No connection
5	Analog GREEN with sync
6	Signal ground (Green)
7	-5 volts DC
8	+12 volts DC
9	Analog BLUE with sync
10	No connection
11	Sound 1V peak-to-peak
12	NTSC/composite color video out
13	Signal ground (Blue)
14	No connection
15	No connection
Shield	System ground

There's no simple, straightforward way to invert sync or to separate horizontal and vertical sync on the composite signal for incompatible monitors, but it could be done as an interface product.

Some types and makes of monitors won't work at all. Digital RGB monitors either won't work at all or will work with unpredictable results. Digital RGB monitors with these problems are Apple's older Color Monitor 100 and IBM RGB monitors (IBM's RGB monitors need inverted sync in addition to TTL video signals.). Apple's Flat Panel Display has incompatible signals.

Do NOT assume that a DB-15 connector on your color monitor means it's analog RGB.

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Apple IIGS: VCR Connection

Here's how and why to connect your Apple IIGS to a VCR.

How: use a normal Apple IIGS video cable to connect the Apple IIGS's video output to the VCR's camera input. (Video cables are available in several lengths.) Set the VCR to "camera."

Why: This arrangement lets you use the television that's connected to the VCR as a computer monitor – and you don't have to use an RF modulator. Because the VCR thinks the computer is a camera, you can save whatever the computer displays on video tape. Use a drawing program, for example, to make title screens for your live-action videos, or use an animation program to make your own cartoon videos.

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Apple IIGS Monitor: Step, Trace, and Search

Step and Trace are not built into the Apple IIGS Monitor. The format for the search command is

\<search string>\{<bank>/}<addr1>.<addr2>P

where <search string> is either a series of hexadecimal values or ASCII text delimited by single or double quotes. In addition, the entire search string is separated from the search range with backslashes. <Bank> is optional (as the braces are meant to indicate) and specifies the memory bank in which you want to search. If you do include a bank number, then you must separate it from <addr1> with a slash. <addr1> and <addr2> are the start and end of the memory range of the search.

For example, for look for the location of the Apple IIgs startup message, type: \"Apple IIgs"\FF/0000.FFFFP

You should get FF/F914: as the response.

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Apple IIGS Super Control Panel: Refresh rate

From the Control Panel on the Apple IIGS, one can set many of the system configuration settings stored in the battery RAM. These include such settings as screen color, microprocessor speed, slot assignment, and others. However, one of the configurable settings that is not included as an option in the Control Panel is the screen refresh rate.

Because the Apple IIGS is an international machine, it must be able to conform to European standards. In Europe, the screen refresh rate is 50 Hz, rather than 60 Hz as defined by the U.S. standard.

In order to change the screen refresh rate, one must enter the "Super" Control Panel. This control panel is kept separate from the regular Control Panel for safety reasons. No harm will come to the Apple IIGS or the monitor if the refresh rate is incorrectly set. However, the screen display may become unreadable as long as the incorrect mode is set. The Super Control panel was made less accessible so that it would be more difficult to accidentally change the setting.

Entering the Super Control Panel is done by re-booting the computer in a special way. Rather than pressing Open-Apple/CTRL/Reset, the normal key sequence for rebooting, simultaneously press OPTION, CTRL, and Reset.

The computer will cold start and then display the Super Control Panel screen.

From there one can change the screen refresh rate, enter the regular Control Panel, or continue with the boot process.

Apple Technical Communications

AppleShare: Apple II Practical Node Limits

TOPIC

How many Apple IIs can be started up from an Macintosh SE/30 AppleShare File Server? Theoretically, 50 nodes can be logged on to an AppleShare file server at a time, but what is the practical limit? I've never seen an Apple II network larger than about 30 nodes, so I can't really estimate the degradation in performance. Do you know of any sites running 40 or more Apple IIe or Apple IIGS systems off of one file server?

DISCUSSION

With 1MB RAM, a Macintosh SE/30 allows 25 Apple II workstations to start up from the server at the same time. With 2MB RAM, the limit is increased to 50 Apple II workstations.

The practical limit for booting depends on the user's situation. For example, 20 Apple IIGS systems starting up at same time from the same server takes approximately 10 minutes, whereas 20 Apple IIe systems take about 4 minutes.

The reason is that the Apple IIGS has more than 120K to load across the network, compared to about 20K for the Apple IIe.

The practical limit for workstations logged on to one server depends on the amount of activity taking place on the network. With low traffic, 50 users logged on at one time may be acceptable. As traffic becomes heavier, it is probable that the practical maximum number of active users will decrease.

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The Nibbler

❑ Precisely what Apple will reveal this October will probably be known by the time you read this. If it is the long awaited low-cost entry Mac, it is going to throw the dealers into real confusion. It seems to take some three months from a launch before stocks are available to give to the customers. In the meantime no one will want to buy the Mac Plus or the SE. I predict a flat period where only the more expensive Mac II's are actually purchased. There will be lots of orders of course for the new machine, but money will not be changing hands. It would help the dealers of Apple were to have amassed large stocks already and actually deliver the next day.

In the meantime, for only £1000, you can upgrade your SE to a full SE/30. As this actually means replacing most of the case, the floppy drive and the motherboard, you end up with an almost new machine. But bear in mind that for the difference in price between its second hand value and the £1000, you can get a new SE/30.

The portable has dropped in price. I gather they were not selling enough! I wonder why? Until they are much cheaper, come with a 68030 and have sufficient memory they just will not sell in any volume.

❑ My friends at Bidmuthin say that they have a small quantity of LCD screens for the //c. These were never sold in this country if I remember correctly. Chris Bonnington took one up Everest, but apart from that I have rarely heard of them being used. The //c of course will run from your cigarette lighter on your car. With an LCD screen you will be truly portable. All you then need is one of the new 1 meg //c+ machines from the States. Fit it with the LCD screen and an internal hard drive, load your copy of AppleWorks 3.0 on the disk, and you have a lighter, smaller and cheaper machine than a Mac Portable! The disks will even fit into your Mac when you get home.

❑ Bidmuthin also tell me that the IIgs PAL video overlay card is now available. This card, although manufactured in Europe, is sourced through Australia. This is an Apple card and I understand is modified in Australia for PAL use. The card allows the //gs to enter the interactive video arena, switching the output from your video recorder with screen images from the //gs. Those of you who take A2-Central will have seen much discussion on the subject.

At £495 plus VAT it is not cheap, but it is a cheaper option than a Mac II with interactive video. I predict this will bring interactive video to many new computer users.

❑ Hewlett Packard are about to release a new DeskJet printer. In the meantime Bidmuthin are selling off old stock of the DeskJet at £325 plus VAT. Note this is not the DeskWriter. It can be used on the Mac by using the 'MacPrint' utility, but its main use is as a high quality laser-like printer for use on the Apple // series computers. Price is £325 plus VAT

MGA tell me that they have reduced the price of Publish-It! V1.2 for the Mac to £349.95 WYSIWYP (£299.99 plus VAT). They also have stocks of Publish-It! Easy V1.10 for the Mac at £199.9 WYSIWYP (£169.99 plus VAT). Readers will remember that this package was reviewed in the February 1990 Apple2000. It is not state of the art desktop publishing, but as it includes a drawing package and a word processor, it has all you need for desktop publishing in one complete package.

❑ The Disabled Specialist Group of the British Computer Society has asked us to publicise their forthcoming Conference and exhibition to be held at IBM in Warwick on the 6th and 7th of November.

The title of the Conference is 'Europe: Markets and Politics' and will examine the changes in marketing and legislation that will happen after 1992 and that concern the use of technology by people with disabilities.

If you would like further details please contact:

Graham Watson, G6 Burton Lodge, Portinscale Road, London SW15 2HT (081 8740637).

❑ I know that we have many members who are also radio 'hams'. I presume they will all be going to the Fourth Alternative Micro Show and Radio Rally (AMS4) to be held at Bingley Hall, Stafford Show Ground, Stafford on Saturday 10th November.

Computers, peripherals, media, TV, video, radio, software, books and a bring and buy are amongst some of the things on show.

If you want further details, please contact Sharwood Services on (0473 602460).

❑ I have been happily using my removable hard disk drive for some time now, and can report my continued enthusiasm for it.

The drive contains the now standard 44mb Syquest unit to be found in almost all of these kinds of drives. I run the drive from both a Macintosh and the Apple II. Although this is seen as a standard SCSI device on the Mac, the Apple II SCSI card would not see it properly at all. Until now I had been running it from an AMR SCSI card in the second slot.

I recently got hold of the new high speed Apple SCSI card and was pleased to report that it sees the Syquest unit fine. I was able to daisy chain the two drives and have all four partitions come up on the desktop. However, there was a slight drawback, the Apple card did not like the formatting of the AMR drive, and so I had to reformat the disks. A lot of time would be spent backing up and restoring if you have many of these things!

One annoying thing is that I could not eject the disks from the desktop, and if I tried to replace a disk, the Finder has a nasty habit of writing a new Finder.Data file that shows the drive as being empty! The moral is to power down before changing disks on the Apple II.

The new high speed card gets its high speed by using DMA to access memory. Unfortunately not all IIgs extended memory cards are DMA compatible. Mine is one of these, and so I have had to switch this feature off to get the card to work.

If you intend using the high-speed SCSI card on the IIgs, make sure your memory card will work properly with DMA. The Apple memory card is fine as are the newer Cirtech ones and also I gather the newer AE cards. I have an older AE 1.5 mb card which definitely will not work!

❑ I am reminded that John Ritchie is our AppleWorks expert, and letters with specific AppleWorks problems should be addressed to him C/O the Liverpool PO Box.

In bringing this matter up Ewen has asked me to explain what happens to letters that are sent to Liverpool. If these are asking for specific problems to be answered, they are routed to the appropriate editor of the magazine unless they have been addressed to a particular person.

As the editors prepare the magazine in their own time, these letters are not usually answered or dealt with till the next magazine is being worked on. If however they need an urgent reply, then this is usually done immediately. Otherwise, a proof copy of the reply is returned with the disk, and the reply is published in due course. Letters received that are not on disk, will not necessarily get a personal reply in this way. The editors just do not have enough time to do everything they would like to!

To ensure you do get a personal reply to your problem, it helps to send your letter on disk. We can handle any kind of disk (even I*M), and as the disk has to be returned to you, we can enclose a copy of the reply at that time.

Ewen asks you not to stop the flood of letters that he receives as Apple II Editor, the more the merrier! The letters pages are fast becoming one of the strongest features of the magazine. **The Nibbler**

The Play Room (Broderbund) **£29.95**

A delightful world filled with games, toys, surprises, and learning experiences for children from preschool to age 7. They automatically start to learn about numbers, letters, and time. Develops thinking and computer skills through hours of stimulating play. Available in 5.25 or 3.5" versions, as well as a £39.95 school edition, and a 5-disk school lab pack @ *£99.95.

SpellCopy (JEM) **£12.50**

Copy your AppleWorks 3 dictionaries to a RAMdisk at bootup for maximum spell checker speed! SpellCopy can automatically copy dictionaries, and it also features the ability to modify AppleWorks so that your dictionaries can be on a drive other than your AppleWorks disk. This means that if not much RAM is available, you can put AppleWorks on the RAM disk, but keep the dictionaries on the AppleWorks disk.

DoubleData (JEM) ***£30.00**

Double the number of categories in the AppleWorks 3 database! DoubleData gives you 60 categories for every record; with two pages of 30 categories each you can set up those large databases just the way you've always wanted. Press OA-J to jump to the other page instantly, or move categories from one page to another to fine tune your layout. The 30-category barrier is history.

Flexical (JEM) ***£30.00**

Calendar system for AppleWorks 2/2.1/3

Never miss another appointment! Too many computer calendars unrealistically require the user to be deskbound all day. This one is for people on the go - real people like teachers and businessmen who have to take their calendars with them, day or night.

Written by a teacher, Flexical gives you practical daily, weekly & monthly calendars which you print as needed. The weekly & monthly calendars are automated by a special version of UltraMacros (included) so that you can effortlessly enter, arrange & view everything you need to stay efficiently organised.

Mr.Invoice (JEM) ***£40.00**

Finally, a fast and easy invoicing system for AppleWorks 3 users is here! Mr.Invoice's handy prompts use the power of UltraMacros (special version included) to guide you as you enter orders. Mr.Invoice will: maintain a customer database; automatically update stock; automatically track backorders; let you print to any custom form; optionally track monthly or annual (1 or 2 year) sales; print on standard continuous-feed invoice forms.

MiniPaint (JEM) ***£25.00**

Minipaint is small in size but not in features. Needs GS/OS and runs on any GS with more than 512K. Supports both 320 & 640 modes with easy switching; auto-shadowing provides powerful "light source" control; scroll bars speed you to any part of your picture; exotic lasso & marquee options; "dither lock" keeps 640-mode colours accurate; keyboard shortcuts speed up work; co-ordinate display offers pixel-by-pixel control; prints on LaserWriters and in colour on ImageWriters. March '89 Computer Shopper magazine said, "Overall I'd consider MiniPaint every bit as good as MacPaint with the addition of colour capabilities...MiniPaint gives you more features per dollar than any other IIGS-specific paint program".

More New Kit

Analog Plus (Suncom) **£27.99**

This exceptional joystick features four switchable fire buttons, including one on the "trigger" finger. You'll score more because now you can experience a difference with variable auto-fire. No more shooting just when the joystick wants. Now *you* fire when you want, because the Analog Plus will respond to your command. Aircraft-style pistol grip. Ask for 16-pin or D-9.

Animation Station (Suncom) **£75.00**

Now you can unleash your creativity. This is a mini graphics tablet on which you can draw or trace pictures with the included stylus or even your finger! Includes pre-drawn shapes, automatic generation of circles, squares, ovals, rectangles, straight lines and other geometric shapes as well as several fonts. Effective area approximately 15x12cm, works in colour or b/w hi-res, and connects to the game port.

More New Software

TimeOut TeleComm (Beagle) **£45.00**

If you produce most of the data you send by modem using AppleWorks, or end up using data received by modem in AppleWorks; - then why *leave* AppleWorks to either send or receive files? With TO TeleComm you can log on to your favourite information service right inside AppleWorks! Just cut and paste your captured text from the review buffer into an AppleWorks file, or send from any word processor file. Keep your commonly used phone numbers in a database and TeleComm will dial the number - and send your login sequence when the connection is made! (Requires AppleWorks v2 or above).

Ticket to London/Paris/Spain (Blue Lion) **each £27.00**

Touch your keyboard and imagine yourself in one of these great places. Play tourist, shop around, visit museums and points of interest, exchange money and converse with the locals. There are even choices to play Ticket to Paris in either English or French, and Ticket to Spain in English or Spanish. Mystery and adventure; these travel simulations offer some realism, great graphics and an immensely rich learning experience.

Ticket to Washington/Hollywood (Blue Lion) **each £30.00**

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Apple User Group Advisory Council

JOHN SCULLEY's Address to The Apple User Group Advisory Council in San Jose on 16 April 1990

❑ A report by William G Watson of Midapple (The Independent Apple Users' Group in the West Midlands)

❑ Geoff Parsons of the Southampton Macintosh Users' Group and I were guests of the Council (courtesy of Apple UK).

The Big Boss arrives

We had brought our breakfast meeting forward an hour to enable John Sculley to re-arrange his schedule for the day.

There was a certain tension in the air. The Big Boss was expected. Some Apple employees hopped from foot to foot. The casual clothes were replaced with lounge suits; there were nervous jokes about the permanency of employment - "What are you doing tomorrow?" - "Well that depends on whether I have a job tomorrow, etc.". That sort of thing.

The seating was arranged; the video engineers set up their equipment; voice tests were done. "Could I take photographs?" I asked. Nobody knew. "Perhaps you had better not; ask the engineers" I was told.

In he came. He was casually dressed in striped shirt and red tie, and relaxed. He was introduced. He spoke.

He told us that there were now about 1600 User Groups in the US, with ever more groups in the "institutions". There was clearly a broadening of acceptance of the product, he told us.

Sculley Speaks

"User Groups are at the root of Apple. They are part of our future. Users talk to users - and that communication is more effective than advertising."

"The outlook for 1990 is positive - with global acceptance of the product. We are placing special emphasis on broadening our product line. We need a wide range of Macintoshes - a "rainbow" - a range of products from low-end to high".

Question Time

Questions to John Sculley had been prearranged at a meeting the day before. They were wide-ranging. They touched on the future of the Apple II, the support for User Groups, Japanese restrictions, Apple in the Eastern bloc and Education.

The game kicked off with a question about support. In reply he recognised that there were inconsistencies in the support given to users - "We will have to get better." He said the User Groups play an important role and that we need to work together.

From the touchline came the question expected from both sides - "What is the future of the Apple II and how will it co-exist with the Macintosh?"

The ball was picked up deftly; "there are 6 million Apple IIs and it would be unfair to walk away from that. We need to make a 'bridge' to the Macintosh line. There is already, and will continue to be, an accent on being able to exchange peripherals between the machines. There will be some exciting new products in the future".

I missed the next question but the answer seemed to suggest the issue of Macintosh remaining competitive with other systems. J.S. talked about the importance of multi-media. He recognised that the Macintosh will be challenged by products like Windows 3.0 but he promised that we will keep up.

The "Knowledge Navigator" was mentioned and a promise made that such capabilities would be implemented. - "Artificial Intelligence will happen in this decade!"

In response to a question about how Apple will deal with Japanese restrictions, J.S. pointed out that they use Japan because of their high quality products; that Japanese vendors are being encouraged to build in the US. He was optimistic that Congress would not be inconsiderate about this issue."

In regard to marketing strategies JS said that there has to be a balance between the high-end and the individual user. Apple's priority is to produce low-end products in the Macintosh family - "as we mature, we will get it together".

User Group Support

Support for User Groups would see the shift in focus from Cupertino to the 'field'. This would mean better relations with the User Groups.

In reply to a question about the role that Apple will play in the educational policies of the US, JS replied that he had recently spoken to President Bush on this subject - "I am a strong believer that computers must be brought into schools. We put tools into industry. Teachers need the tools now. The experience of learning must be made more interesting..... we can do that with computers. People retain 10% of what they read, 30% of what they see; and 70% of what they do."

The New Europe

The Eastern bloc and the Soviet Union were untapped markets. Macintoshes had got in through the 'backdoor' - Peristroika was mostly written on a Macintosh. The countries of Eastern Europe were separate and we need to talk to them individually. All the computer companies are interested in doing this. By the end of the decade they will be a thriving part of the world and Apple would like to be part of that."

"What" some-one asked "can I tell my principals when the choice is an Apple II or an MS-DOS machine". "Tell them that there will be a bridge to the Macintosh. Tell them that Apple has a large number of people who have come out of education; and tell them that with Apple you are buying a relationship - a lot more than hardware".

Session over. Most people relax.

John Sculley is introduced to individuals, hands are shook. Nobody asks for autographs. The British contingent hold back. It is the US User Group Council Members show.

We start analysing what we have heard.

WHAT JOHN SCULLEY HAD TO SAY ABOUT SYSTEM 7.0

Reporter: William G Watson of Midapple

At a breakfast meeting in San Jose, John Sculley addressed the Apple User Group Council. He had certain things to say about the imminent new operating system for the Macintosh.

He said that there is a definite intention to "ship" it this year. He gets a weekly report on its progress. We got the impression that System 7.0 is more of a new way of life than an operating system.

He said that it had a wide range of new capabilities, that it would enable many applications to work together (transparently) particularly "interactive media (the new buzz-word" for multi-media) and desktop publishing.

Compatibility

Sculley wished to make it clear that System 7.0 would work with ALL Macintosh systems. He knew that rumours and speculation were rife. The only constraints he said were that one would need two megabytes of memory and a hard disk drive. " The price of D-RAM is coming down; I suggest you go out and get more memory " he said.

JEAN-LOUIS GASSEE

Keynote Speech at MacWorld Expo San Francisco 12 April 1990

❑ *A report from William G Watson of Midapple (visitor to the Expo - courtesy of Apple UK)*

" Three Steps in a Love Affair "

The ill-fated Jean-Louis who resigned this year after some boardroom wranglings was able to present his "swan-song" before leaving Apple in September.

I have extracted some of his "views of the future " for the computer as they impressed me and pass them on to you. It may be that we will get to see the video of the speech at some time. Until then, I hope that I have chosen my excerpts wisely.

1.. Jean-Louis wants to see a "hand with a stylus" instead of a keyboard in some parts of the computing environment. He clearly wants to see a more intimate relationship between users and their machines.

2...He has the view that programming is an "unnatural act" and would like to see programming for "normal" people.

3.. He would like to see some "disorder" continue to exist; he says that it is the user who is the interface between hardware and software. He was suggesting that "order" can suppress creativity. He wants to see programming "perverted" as it leads the way to progress,

4.. Jean-Louis wants to enhance the "Power User". He would like to limit the frustrations in programming of not allowing users to do the things that they want to do.

5.. He talked considerably about his dreams of personal computers being linked world-wide. He saw many instances of "many-to-many" networks - the telephone system, roads, fax, ISDN. Computer networks were much more difficult. He talked of the "techno-greek" of tele-communications, of modems, of enabling computers to talk to each other.

The Global Network

He would like to see a jackplug in every home and office into which you could plug your computer. He described the tedious, frustrating process of logging into a system over the telephone line and said "My mother can't use it - if my mother can't use it, we are not there yet".

From questions that were put to him it was clear to all that man's abilities, needs and desires were not yet matched by adequate technology. He was not overly-optimistic, at this time, about artificial intelligence or computers driven exclusively by voice input.

THE TRIP

A report by William G Watson

In the early part of this year Derek Baker of Apple UK (who has taken on the responsibility of User Group Support in this country) made an offer that could not be refused.

He wrote to all groups registered with Apple UK and set a competition to find a User Group that would provide two representatives who would accompany him to California to sit in on the US Apple User Group Advisory Council. It was indicated that there might be a possibility of attending the MacWorld Expo as well. As it transpired this did happen.

The competition saw a dead-heat for first-place and Apple UK decided to take representatives from the two groups.

The Winners

Geoff Parsons of the Southampton Mac Users' Group and I were the lucky winners.

The purpose of the venture was never clearly defined. We perceived it as a public relations exercise. As it turned out it provided a very good insight into the relationship between Apple US and Users' Groups.

It is the intention of this report to give you, the reader, information about what happens in The States. It may be that we see the re-establishment of the UK Apple Advisory Group Council and that much of what we saw could be features of our relationships with Apple UK in the future.

First of all let me raise your 'envy-level'. Apple treated us very well. We met at Apple UK and had a brief tour of their offices. A Jumbo then took us to San Francisco where we

were royally accommodated at the Hyatt Regency Hotel.

The MacWorld Expo

We spent the first two days of our trip at the MacWorld Expo. Our first meeting with other Apple Users took place at the 'breakfast' that had been organised by Apple. This seems to have become a common feature at the major events in The States. Hundreds of representatives from Users' Groups are 'banqueted', speeches are made, old acquaintances renewed and new friends found.

After the Expo we were treated to the tourist 'bit' of San Francisco by day and by night. You know the sort of thing - the Golden Gate Bridge and cable cars followed by clam chowder and snapper at Fishermen's Wharf looking out over Alcatraz.

San Jose and the UGAC

Onward to San Jose and the Fairmont Hotel, where the purpose of our journey was realised, to meet the Apple User Group Advisory Council. The three-day meeting included a day spent at Cupertino and was followed by a trip to the Freemont Macintosh factory before returning home with lots of memories, new friends and a 'bag' of ideas for developing good links in the UK between Apple and the User Groups.

APPLE CONNECTION

Apple has recognised the advantages in developing and maintaining good relationships with Apple Users. To this end it has set up a staff team known as 'Apple Connection'.

Through this connection there has grown up a wide range of services provided to users through Users' Groups. Space does not permit of much elaboration of these services though I will attempt to be as comprehensive as I can. Any User Group that wants more detailed information are asked to invite either Geoff or myself along to one of their meetings.

The Many User Groups

I should mention here that there are some 1600 User Groups both large and small. There are similar to the local groups which predominate in the UK . These are known as Community Groups.

There are the Corporate Groups; these are User Groups which have grown up in business. Some examples of these were to be found in the Advisory Council - 3M MUG and Walt Disney Imagineering (sic).

The Government Groups were represented by a Major in the Pentagon (Pentagon MUG), someone 'in artificial intelligence' at NASA Headquarters (NASAHQMUG) and a Graphic Illustrator from the Smithsonian Institute (SMUG).

The Universities were represented by Presidents (we have Chairmen and women) from Drexel University (DV&DUMUG) and MIT (MITMUG).

K-12 is an American expression which defines education from kindergarten for 12 years. There seems to be a lot of Apple II users in this arena; and Users' Groups to boot.

I understand that in the UK, apart from our local groups, we have User Groups within the BBC and Plessey. So the US scene is a little different.

Facilities made available to US Users

Here are the services and facilities extended to Users:-

A.. Advisory Council

Each year there is a meeting of selected User Group Presidents. The title President is an unusual one for us in the UK as we tend to have Chairmen and Chairwomen.

This is the 'event' that we attended. It provides Apple with the opportunity to glean valuable information about the perception of its products in the market-place. It provides users with a direct link to Apple where problems may be addressed. Essentially my perception was of a 'think-tank' of very talented users contributing to the development of Apple.

B.. AppleLink

This is a Bulletin Board System (now available in this country) which provides a forum for users to gain on-line advice and technical information. User Groups get preferential rates in accessing it. It is accessed from a Macintosh and uses dedicated software. User Groups can talk to User Groups; there is a downloadable software library.

C... Quick Connect

A regular magazine is sent out to User Groups in the form of a Newsletter which keeps up-to-date with developments in the company.

D... Mailing labels sent out to developers

It is recognised that developers have a need to distribute information about their programs. Apple US facilitates this by maintaining a database of contacts within User Groups and sending out address labels to developers.

E... NAUG CD-ROM

CD-ROMs are sent to User Groups

F... Mailings

Apple US sends regular parcels of information to the User Groups depending on their status as community, corporate, government or education groups.

G... 800 telephone number

A free telephone service is available which will enable users to find their local User Group.

H.. Press releases

Whenever the press are informed of new developments, copies of the press releases are automatically sent out to User Groups.

I.. Apple employees attending user group meetings

Apple employees are encouraged to attend User Group meetings to talk to users and give talks or demonstrations.

J.. User Group breakfasts

At many of the computer exhibitions, such as MacWorld Expo, users are invited to a "breakfast". This provides an opportunity for User Groups to get together and share information.

K.. Videos

Video tapes in NTSC format are sent out to the groups of "keynote" speeches made by Apple personnel.

L.. Training material

It would appear that the User Groups play a role in training their members in the use of Apple computers. Apple provides training material.

M.. Demo disks

Apple sends out demonstration disks of new applications.

N.. New product information
Details are distributed about new products.

O.. Technical notes
User Groups are able to maintain a library of technical information from the regular mailings of technical reference material.

P.. Loan library
Apple sends out hardware and software for the groups to use at their meetings.

Q.. Apple booth at shows
At the major exhibitions (and it would seem some minor ones) you will find a stand manned by Apple.

R.. Booth financial support
Apple has provided cash for User Groups to run a stand at shows.

S.. Collateral material spelling out the advantages of User Groups
To assist with recruitment initiatives, Apple will help with flysheets and other material.

WHAT USERS EXPECT IN THE USERS' GROUPS
One of the workshops run at the Advisory Council was geared to identifying the expectations that users have of their User Groups.

These included:
Training: in the use of equipment and particular applications.
Regular Meetings: opportunities for users to learn from each other.
Support: knowing that help is available and real.
Access to information: Users' Groups as a resource centre.
Newsletter: an essential communication device.
Advice on purchases: comparing notes.
Software library: adding power-tools to the application, templates, etc.
Product demonstrations and information: latest developments.
Contact between members: helping each other.
Video libraries: for training
Apple Community News: what is Apple up to now ?
Discount purchasing: attracting discounts from dealers.
Bulk purchasing: buy many, sell cheaper.
Joint purchase: users clubbing together to buy CD-ROMs, etc.
Special Interest Groups: enabling like minds to get together.
Book loan library: reading the individually unaffordable.

WANTED FROM APPLE US CONNECTION
Another workshop looked at what it was thought Apple could do better or provide more of. These ideas included:-

To have more training materials which were Hyperstack-based.
To be given funds to buy expensive equipment.
To be able to borrow equipment: equipment library maintained by Apple.
To be given equipment: Apple to supply hardware to groups.
To have manuals re pinouts - particular in regard to third party peripherals.
To have access to Apple's training facilities.
To have incentives (supplied by Apple) to join UGs - Tee shirts, mugs, etc.
To have more videos of leading speakers.
To have organisational charts; Apple & third party contacts.
To be invited to more launches and events.
To have more help with User Booths (stands) at shows and events.
To be given Developer "status".
To have designated personnel within Apple to call for technical support.
To be given publicity in trade journals.
To have diagnostic software available.
To have portable presentation (projection) package.

In The States they certainly have got their act together. I was very impressed with the Apple Connection team. As a public relations exercise it is effective: as a method of getting feedback from users it more effective than any amount of market research aimed at consumers.

It is gratifying to know that Apple UK is investing staff, time and energy in the development of the interface between the User and the parent company. The mutual benefits are considerable.

William Watson

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UTILITIES & DA's

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Complete Undelete (recover trashed documents) 36
Can Opener (view data files without the application) 75
Copy II Mac (backup some protected software) 29.
Disk Express II (speed up, untragment hard drives) 59
DiskDoubler (file compaction to save space) 49.
Disk Tools Plus (9 essential DA's) 39
Disk Quick (catalogues floppy and hard discs) 32
Disk Top 4 (powerful DA finder) 69.
Gofer (search key words in multiple text files) 54
HandOff (no more "application is busy or missing") 35
InitPicker 2.0 (choose startup Inits) 42
MultiDisk (best hard disk partitioner) 44
Norton Utilities (hard disk utils from the PC) 75.
Now Utilities (12 wonderful Inits & DA's) 95.
On Cue (launch applications and documents from menu bar) 39
On Location (lightning fast file location) 85.
Personality (allows customisation of the Mac interface) 55.
Shortcut (extra commands in open dialogue box) 49
SUM II (essential utilities plus guard against crashes) 89.

SECURITY

After Dark (screen saver with many options) 29
A.M.E. (very sophisticated data security) 195.
DiskLock (reasonably priced data file security) 125.
Empower I (file & data security) 120.
Empower II (sophisticated file & data security) 225.
MacSafe II (file security) 125.
FileGuard (data encryption) 135
Nightwatch (hard disk security) 150.
QuickLock (lock out prying eyes from your data) 75

BACKUP & VIRUS PROTECTION

AutoSave (saves your work at user determined intervals) 29.
Backmatic (for those who hate backing up) 55
FastBack (very fast and compact) 115.
Redux (best backup program on the market) 59.
Retrospect (most sophisticated archival backup) 150.
SAM 2.0 (Symantec's anti virus utility) 79.
Virex 2.6 (best virus tracer & eradicator of all) 59

PRODUCTIVITY ENHANCERS

Calculator Constructor 2 (create DA calculators) 54
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CalendA (brilliant alarm, reminder and diary system) 32
DynoDex (phone/adress DA database with filofax printout) 75.
Exposure Pro (screen dump utility with paint tools) 82
Hyper DA (read HyperCard files from a DA) 49.
MacInUse (register time spent on applications) 59.
Master Juggler (100's DA's & fonts bypassing Font DA Mover) 59.
MultiClip 2.0 (multiple copies & pastes) 65
QuickKeys 2.0 (macro maker, time saver utility) 90
QuickDex (lightning fast DA database, essential) 35
Screenshot (low cost full featured screen dump utility) 35
Stepping Out 2 (software big screen extender) 59.
Smart Alarms (DA reminder/diary system) 75
Smart Alarms multi user (network diary version) call.
SmartScrap & Clipper (enhanced scrapbook) 65.
S.P.A.M.M. (software maths co-processor) 57.
StopWatch 3.0 (logs time usage of applications) 95.
Suitcase 2 (manages 100's DA's & fonts) 49.
SuperGlue II (print images to disk) 69
SuperSpool (best ImageWriter spooler) 59.
SuperLaserSpool (Laser & ImageWriter spooler) 89.
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SIMMs £48.00 per Mb.
Mac IIFX £225.00 for 4Mb.
Macintosh Portable Call.

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End Note 95.
End Link 70.
Expressionist 2 85.
Grammatik 79
Inside Information 79.
MindWrite 155
MacWrite II 155.
Microsoft Word 4 189.
Nisus 3.0 220
Thunder II 59
Vantage 57
WordPerfect 195
Win Text call
WordPerfect 195.
Wordfinder 39
Write Now 2.2 145.

GRAPHICS

Canvas 2 195.
ColourStudio 1150.
Comic Strip Factory 49
The Curator 85
Claris CAD 475.
Cricket Draw 175
Crystal Paint 33
Desk Paint 3.0 125
Digital Darkroom 225.
Dreams 249
Freehand 365.
Illustrator 3.0 415.
Image Studio 415.
MacDraw II 275.
MacRenderman call
MacPaint II 89
MasterPaint 57
MasterColour 115
MiniCad 495
Model Shop 425.
PhotoShop 695.
Pixel Paint 2.0 235
Pixel Paint Professional 375.
Streamline 299
StrataVision 295.
Swivel 3D 295.
Swivel 3D Pro 375
SuperGlue 2 69
Super 3D ver 2 299.
SuperPaint 120
Studio 1 75.
Studio 8 255.
UltraPaint 140

DESKTOP PUBLISHING

DesignStudio 495.
DTP Advisor 59
FrameMaker 750
LetraStudio 385.
MacKern 69
Metamorphosis 95
Multi Ad Creator 675.
PageMaker 4.0 495.
PageMaker Studio 89
Partner 65.
Pre Print 365.
Publish It 250
Publish It Easy 125
Quark Xpress 3.0 495
Quark Xtras 69
Ready,Set,Go 4.5 240.
Smart Art 1,2,3 each 99
TScript 115.
TypeStyler 155
TypeAlign 79

FONTS

Adobe Fonts call.
Adobe Type Manager 69.
ATM Plus Pack 130
Adobe Type Reunion 49.
Adobe Type Set 79
Art Importer 95
Club Type call.
Fraction Fonts 45
FontStudio 450.
Fontastic Plus 2 65.
Fontographer 3 295
Fluent Fonts 35
Fluent Laser Fonts 59.
Monotype Fonts call
Technical Fonts 95
World Class Fonts each 49.
"The Originals", "The Stylish", "The Giants" and "The Triples" great for LQ and IISC printers.

MULTIMEDIA

ColourSpace II 1795
ColourSpace FX 2650.
Computer Eyes 250
FilmMaker 695.
MacroMind Director 450.
MediaMaker call
Moonraker 2500.
Neotech Image Grabber 1150.

CLIP ART

The Visual Arts 150.
MacAtlas EPSF 115.
Comic People 29
WetPaint each 49
"Classic Clip Art", "Animal Kingdom", "Printers Helper", "Old Earth Almanac", "Industrial Revolution", "For Publishing", "Special Occasions", "Island Life", "All the People"

PROGRAMMING

Programmers Online Comp 35.
Prototyper II 195.
QuickBasic 59
SmallTalk V 139
Think C 4.0 135
Think Pascal 3.0 135.
TMON 98
ZBasic 5 125

BUSINESS

101 Macros for Excel 49.
Access Bookeeper 495.
Business Plan Toolkit 69.
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DeltaGraph 105.
Extend 320
Invoicell UK 65
KaleidaGraph 149
KeyPlan 250
MacMoney 3 UK 75
MacProject II 325
MacSchedule 140
Microsoft Excel 189
Microsoft Works 2 159
Microsoft Office 425.
More III 295
Persuasion 365
PowerPoint 189
RagTime 3 350
Sales & Marketing Toolkit 110
SmartForms Designer 275
Stella 275.
Visual Business No. 5 299
Wall Street Investor 395
Wingz 245

MATHS & STATS

Super Anova 425
StatView II 345
StatView SE & Graphics 295.
Theorist 250

DATABASES

4th Dimension 495
C.A.T. 3.0 325
DAtabase 75
Double Helix II 350
DynoDex 75
FileMaker II 195
FileForce 255
Foxbase+Mac 2 390.
Omnis 3 Plus 175
Omnis 5 425.
Panorama 225
QuickDex 35

HYPERCARD

101 Scripts & Buttons 49.
DTP Advisor 59
EuroStack 35.
HyperAnimator 115.
HyperComposer 45
HyperBible 150
HyperTutor 39
HyperTMON 67
Icon Factory 55
Plus 2.0 200
Reports! 75
Script Expert 49
SuperCard 145.

PC COMPATIBILITY

DOS Mounter 69
DOS Reader 29.
MacLink Plus 135.

NEW

EXPOSURE PRO (state of the art screen capture utility. It has sophisticated built in colour, monochrome and grey scale paint features with full 24 bit colour compatibility. It will dither to half tones if needed and can save screens in seven different formats. It has tear off tool menus and cursor and frame tools as well.)

SCREENSHOT (baby brother of Exposure, this one offers no paint capabilities but still works in colour or black and white and saves images to five different formats. It can also stamp program/date/time info on the screenshot.)

CORRECT GRAMMAR (adjudged in all independent comparisons to be the best grammar and style checker available. It also contains a spell checker and works with a variety of word processors including Word and MacWrite)

PERSONALITY (allows you to adapt almost every aspect of the Mac interface to your own taste. Different sounds for every action-even dragging, varied colours

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Soft PC Mac OS ..... 250.
Tops Flashcard ..... 110.
Tops DOS 3.0 ..... 125.

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InterFax 9600 ..... 525.
In/Out ..... 210.
LapLink 3.0 ..... 120.
Liason ..... 159.
MicroPhone 3.0 ..... 210.
Microsoft Mail Server ..... 185.
Microsoft Mail 10 User ..... 395.
QuickMail 2.2 10 User ..... 325.
TopMail Unlimited User ..... 95.
Timbuktu 3.0 ..... 95.
Timbuktu Remote ..... 130.
TOPS 3.0 ..... 145.
Vicom 3 ..... 140.
VersatermPro ..... 180.
WS3000 Modem ..... 235.
WS3000 V22 BIS ..... 295.
Courier HST 9600 baud ..... 595.

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Concertware + ... 49.
Concertware + MIDI ..... 125.
Jam Session ..... 39.
Practica Musica ..... 80.
Super Studio Session ..... 69.
HyperComposer ..... 45.
MIDI Interface ..... 57.

ACCESSORIES

Cables (those not shown below) ..... call.
SCSI cable ..... 17.
SCSI extension 2m ..... 20.
SCSI to SCSI 2m ..... 27.
Modem cable ..... 10.
ImageWriter cable ..... 7.
Anet (AppleTalk) ..... 25.
MacNet (PhoneNet) ..... 19.
DD Floppy Disks 0.90
HD Floppy Disks 1.50
Diskette storage box 80 ..... 9.
ImageWriter Ribbons ..... 3.75.
Toner Cartridge NT ..... 75.
Laser Disk Labels ..... 14.
Anti Glare Screens ..... from 39.
Infra Red Mouse MacPlus 55
Infra Red Mouse ADB ..... 69.
Cordless Mouse ..... 89.
Security System ..... 35.
Mac II Stand ..... 65.
Joystick MacPlus ..... 45.
Joystick Mac SE or II ..... 59.
Gravis MouseStick ADB ..... 95.
Gravis MouseStick ..... 80.
SE/Plus Tilt & Swivel stand ..... 24.
Mac Carry Case 50
Toolkit 15

HARDWARE

Radius Accelerator Plus or SE ... 545.
SIMMS ..... check
Kurta Graphics Tablet 295
Ethernet Boards ..... from 295
MacRecorder II ..... 165.
Psion 400 795
Agenda 32K ..... 155.
Z88 MacLite ..... 299.

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Radius Pivot ..... from 995
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Radius Direct Colour 24 4595
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Raster Ops 19" 8 bit ..... 3750.
Supermac Spectrum 8 SII 3320
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NEC 20" 8 bit colour Mac II 2595

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Microtek 300ZS 2095
OmniPage 550
OmniDraft ..... 75.
Panasonic Scanner 1395
Read-It 2.0 ..... 295.
Read-It Personal ..... 155.
ScanMan ..... 295.
Sharp JX 300 ..... 2390.
Sharp Colour Hand Held ..... 495.
Sharp Colour A3 ..... 5890.
Sharp Software ..... 125.
Thunderscan 189

PRINTERS

Epson LQ software 69
Grappler LX 130
HP DeskWriter ..... 595.
HP Laserjet II ..... 1595.
HP PaintJet ..... 850.
LabelWriter ..... 195.
Tektronix ColorQuick 1995

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Qisk 42 Mb ..... 395.
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Qisk 210 Mb ..... 870.
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External 800K Floppy Drive ..... 159.
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Syquest Cartridge ..... 79.
Panasonic WORM 940 Mb ..... 2350.

CHILDRENS

Cosmic Osmo ..... 47.
KidsTime 35
KidsMath 35
The Manhole ..... 35.
Math Rabbit ..... 39.
NumberMaze 35
Reader Rabbit 39
Talking Tiles ..... 35.
Where in World is CSDiego? ..... 35.
Where in Europe is CSDiego? ..... 35.
Where in Time is CSDiego? 35

TRAINING

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HyperCard, Quark Xpress, Word 4
..... each 69

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ARCADE

→Beyond Dark Castle (more of the classic game) ..... 27.
✔Crystal Quest 2 (Britain's favourite game) ..... 29.
✔Crystal Quest with Critter Editor (add game to your taste) ..... 49.
✔Colony (loosely based on the movie "Aliens") ..... 24.
✚Dark Castle (the classic Mac game still going strong) ..... 27.
✔Gauntlet (colour arcade game) ..... 32.
✔Mission Starlight (addictive space shoot em up) ..... 29.
✔NetTrek (network space warfare) ..... 42.
→PipeDream (arcade game from Lucas Films) ..... 24.
→Shufflepuck (air table ice hockey) ..... 29.
✔Sky Shadow (exciting shoot em up from Crystal Quest author) ..... 29.
✔Star Wars (great shoot em up game) ..... 25.
✔Super Hang On (motorcycle racing, build own track too) ..... 29.
✔Tetris (award winning colour Soviet game) ..... 24.
✔Wellitris (3 Dimensional Tetris, could drive you insane) ..... 24.

SIMULATIONS

✔Chuck Yeager Flight Trainer (colour & different aircraft) ..... 25.
✚Flight Simulator (the famous Microsoft one) ..... 39.
✚4th and Inches (manage an American Football team) ..... 29.
✔Falcon 2 (evolving & networkable flight simulator) ..... 34.
✔Ferrari Grand Prix (the best formula one simulation) ..... 36.
✔Fokker Triplane (World War One flight simulator) ..... 29.
→Harrier Strike Mission (jump jet combat action) 32
✚Hunt For Red October (read the book, see the film ...) ..... 24.
✔Life and Death (be a doctor, perform actual operations!) ..... 24.
✚MacGolf (superb graphics (Plus & 1Mb SE only!)) ..... 35.
✔MacGolf Colour (highly addictive (all other Macs)) ..... 56.
✔Mean 18 (alternative colour Golf simulation) ..... 29.
✔P51 Mustang (fast & furious flying) ..... 39.
→PT 109 (graphic patrol boat simulation) ..... 29.
✔Sim City (design and run your own city) ..... 32.
✔Sim City Colour (design and run a colour city!) ..... 52.
✔Space Rogue (equivalent of Elite only better) ..... 27.

STRATEGY

✚Ancient Art of War (Sun Tsu's high quality war simulation) ..... 29.
✚Ancient Art of War at Sea (seafaring version of above game) ..... 29.
✚Balance of Power (use political strategy to keep the peace) ..... 24.
→Balance of Power 1990 (sequel to the best seller) ..... 24.
→Balance of the Planet (save the environment and the world) ..... 35.
✔Guns & Butter (run your own country) 27
✚Patton vs Rommel (strategy war game) ..... 19.

ADVENTURES

✔Arthur (text based adventures of the round table) 32
✔Citadel (fantasy adventure) ..... 29.
✚Deja Vu (hard boiled private detective adventure) ..... 24.
✔Deja Vu II - Lost in Las Vegas (the sequel) 24
✚Leather Godesses (raunchy and witty adventure) ..... 15.
✔Manhunter New York (excellent graphic adventure) ..... 35.
✔Manhunter San Francisco (the adventure continues) 35
→QuarterStaff (role playing with colour) ..... 33.
→Shadowgate (text/graphic adventure) ..... 24.
✚Trust & Betrayal (intuition, ethics not bullets) ..... 24.
✚Uninvited (text/graphic adventure) ..... 24.
→Zork 0 (classic adventure now in colour) ..... 39.

BOARD GAMES

✔Bridge (from novice to advanced playing levels) ..... 29.
✔ChessMaster 2100 (best Chess game now updated) ..... 25.
✚Solitaire (9 different patience games) ..... 24.
✔Solitaire Colour (with beautiful graphics) ..... 24.
✔Shanghai (Mah Jonghish game with stunning colour) ..... 21.

KEY Works on ✚ Plus & SE only → Plus, SE, II ✔ all Macs inc. CX and SE30. Many games do not work on the Ci and Portable.

NEW

in menus, windows, scroll bars, 3D buttons and menus in any font you like and lots more. Makes working on a Mac even more of a pleasure.)

CALENDAR (combined diary and alarm reminder system in the form of a Desk Accesory. Essential organiser which contains a full list of Bank, European and American Public Holidays.)

MASTERPAINT (powerful low cost paint program with full feature list. It has dual paint and draw capabilities, turns draw objects into bit-maps, supports 7 resolutions between 72 and 300 dpi, imports MacPaint, PICT and TIFF files, custom tools, free rotate and a fantastic custom tool for intricate spirograph polygon shapes and 3D rectangles.)

MASTERCOLOUR (fully 32bit QuickDraw compatible version of MasterPaint with a few original tools of it's own.)

All MacLine products are sourced from the official UK distributor where one exists. This entitles you to full backup and support in this country, not the United States.
Accept no less. This may be more expensive in the short term but consider what happens when an upgrade is released.

MacLine

MacChat

Norah Arnold looks at the latest Macintosh developments and product news.

Remember A.P.P.L.E.?
Those Macintosh owners who have graduated from Apple II ownership may remember A.P.P.L.E. the Puget Sound, Washington, user group. If I remember correctly the name stood for Apple Public Program Library Exchange. MacTech Quarterly, the Macintosh magazine started initially by the Apple Public Program Library Exchange as a Macintosh publication to accompany its Call-Apple magazine, announced at MacWorld Expo/Boston that from now on it will be known as MacTech Journal. The publisher has gone on record as saying that it provides the magazine with the option of becoming a bimonthly or a monthly in the future.

Literary Quote Retrieval
PennComp of Houston, Texas, has introduced QuoteMaster Plus/Mac, a literary quote retrieval system for the Macintosh with a suggested retail price of $89 in the USA. QuoteMaster Plus/Mac includes a Primary Literary Quotebase including a scrolling list of the authors of the quotes in the quote base and various utilities. To use the system with the Primary Literary Quotebase, a system with 2.7 million bytes (2.7MB) of free memory is required. In addition to the basic product, PennComp offers four additional quote bases, each with over 500 quotes that may be added to the system. These add-ons cost $25 each and are related to a specific area. The Humorous quotes includes items from such authors as Mark Twain, Woody Allen and Samuel Johnson; the Success base contains quotes relating to business success from such figures as Peter Drucker and Henry Ford; the Contemporary quotes contain quotes from 20th Century figures such as Lee Iacocca, Margaret Thatcher and Truman Capote and the Motivational base contains quotes from persons including Helen Keller, T.S. Eliot and Winston Churchill.

New Books from Addison Wesley
Addison-Wesley has announced the introduction of a number of new Macintosh-related books. These titles include ResEdit Reference, an Apple Computer written book describing the latest version (2.0b2) of the ResEdit utility. The ResEdit work from Apple provides information not found elsewhere. ResEdit Reference has a suggested retail price of $12.95.
Another interesting addition is volume 2 of Dave Mark's Macintosh C Programming Primer series. Volume I was an introduction to programming on the Macintosh whereas Volume II covers the more advanced concepts such as colour quick draw and object oriented programming. The Macintosh C Programming Primer, Volume II will be sold at $24.95. Another new release, C++ Programming with MacApp which includes an accompanying diskette, sells at $34.95. Stupid MacTricks by Bob LeVitus will also be a treasure for those who enjoy exploring the heart of the Macintosh operating environment. Stupid MacTricks, which will also include a diskette, has not yet been released.

New Object Logo
Paradigm Software has announced that it will publish a new version of ObjectLogo for the Macintosh. The new version, 2.5, is available immediately for a suggested retail price of $149.
Object Logo for Macintosh was originally developed by Coral Software which introduced it in 1987. Apple Computer, Inc. acquired Coral's assets in 1989 and has recently entered into an agreement with Paradigm under which Paradigm has assumed all future development, marketing, and support for the product. Announcing the product, Hazem Sayed, founder and president of Paradigm Software, said "We are very confident of the success of this product. It is an enriched version of Logo which will support the features of both the existing Macintoshes and any future systems that Apple introduces for the educational market." Paradigm Software have gained the support of Apple was for their new production. David Eyes, manager of development tools product marketing at Apple Computer, said that the company has the "expertise to vitalize Object Logo and market it effectively around the world," while Steve Scheier, Apple's director of K-12 education marketing, added, "It is good to know that an object-oriented version of the Logo language, which is so important to computer science literacy and problem solving curricula, is to be updated."

WealthBuilder
Reality Technologies, Ltd. has announced the introduction of WealthBuilder by Money Magazine for the Macintosh. The product, a personal planning and investment system, will be available from September at a suggested retail price of $249.95. The product is intended to both provide a perspective on the user's present financial position and provide the tools to develop a sound investment strategy. To perform the analysis of present net worth, financial information may be entered manually into templates or imported from Quicken, Andrew Tobias' Managing Your Money, or MacMoney. Once the strategy has been developed, the program provides aid in selecting securities by providing performance data on up to 1,145 mutual funds and 10,000 stocks and bonds. Information concerning these securities may be graphed against

your current portfolio, other securities in the database or any assortment of other indicators such as inflation, gold, the S&P 500, and the Money Small Investor's Index. In addition to the program and documentation, the system also contains Money Magazine's 'Guide To Personal Finance In The 1990s' audio cassette. Announcing the product, Reality President Mark H. Goldstein said, "WealthBuilder integrates multimedia technology with solid investment strategies and information to help people do a better job of managing their finances."

Jukebox for Mac

Fifth Generation Systems, which publishes a number of popular Macintosh software utilities, has announced its first hardware peripheral for the Mac. The prototype of "Jukebox 5" sequentially feeds a stack of up to 15 diskettes into a Macintosh's internal disk drive. Company officials said the product will be available in October. The price has not yet been set, but is expected to be around $200 to $250.

The Jukebox 5 will include a bulk disk formatting and copying program and will also be bundled with Fifth Generation's Fastback II backup program, allowing unattended backup to floppy disks. The product requires gravity to work, and cannot operate with the Macintosh II family of products if the computer is mounted vertically.

Fifth Generation also showed the new version 2.5 of Fastback II with a simplified menu structure and File Director, the merger of PowerStation and DiskTools. DiskTools, recently acquired from RainMaker Software, is the corporate name of programmer Evan Gross, who also wrote the Thunder line of spelling checkers. Fifth Generation also announced version 2.0 of DiskLock, a file protection utility. The new version included, among other features, support of the Data Encryption Standard (DES) and automatic locking after a crash or power loss. Fifth Generation also publishes Suitcase II and Pyro! for the Macintosh.

Conch Shell

Conch Shell, an application development shell for 4th Dimension, has been introduced by Cayman Data Management, Ltd., a firm located in Grand Cayman, one of the Cayman islands in the British West Indies. Conch Shell will greatly simplify 4D development effort. Conch Shell is an open ended, multi-user application development shell for 4th Dimension. It automatically manages Buttons, Menus, and Common Functions (add, delete, modify, search, etc.). A site license is offered and allows employment of an unlimited number of "Registered Users" at a development site without purchasing additional copies of the software. The developer may then distribute an unlimited number of finished applications without incurring additional liabilities to Cayman.

Add-on Memory and Static Disks

Newer Technology has introduced a number of storage enhancements for the Macintosh line. These devices include a memory card for the Macintosh Portable with expansion capability of up to 8 megabytes (MB) of random access memory (RAM); a non-volatile solid state RAM disk drive, the NVMD Memory Drive and the SCSI Dart High Speed RAM Disk System which, with the proper SIMMS installed, can provide for up to 512MB of RAM. The memory expansion card for the MacPortable holds 2, 4, 6 or 8MB and installs into the RAM slot of the Macintosh.

SuperMatch Professional

SuperMac Technology has announced products and technology that will let users standardize process and spot colours on input or output devices as well as monitors. The SuperMatch Professional Colour Matching System is based on technology licensed from Tektronix, Inc. The TekColor database and mapping software works with a SuperMac Display Calibrator to fine-tune colour on the Macintosh's monitor so that they accurately reflect colours that are standard to the printing industry. The TekColor software matches screen colour with output and input colour.

The calibrator, like Radius' similar product described below, will work on any Macintosh II monitor. A SuperMac Colour Picker replaces the standard Apple Colour Picker, which controls the pallete from which the Macintosh draws colours. The SuperMac picker, however, uses the Tektronix technology to show which display colours will print well and which will not. The SuperMac Display Calibrator will carry a list price of $699 and will be available from November 1, 1990. It will probably be bundled with the company's $4,999 Spectrum 24/PDQ cards. For more information contact SuperMac 415-592-7600.

New PixelPaint Professional

SuperMac Technology have also announced a new, completely rewritten version of the PixelPaint Professional colour painting program for the Macintosh. Version 2.0 of the program features a new interface with floating palettes, the ability to work with multiple documents simultaneously, adjustment of colour, contrast and brightness, a colour gradient editor, and "pressure"-sensitive tools. The new version also lets shapes or text to be moved or changed after it is created, similar to the way object-oriented drawing programs operate. The program is scheduled to be available in October 1990 at a price in the USA of $799.

Hand-held Scanner

Caere Corporation (Los Gatos, CA) has announced a hand-held scanner which it says can place text directly into a software application, without any need for an intermediary utility program. The Caere Typist, at $695 for the Mac version, is said to have true 300 dpi CCD input array. Designed specifically for page recognition, the Typist uses Caere's AnyFont optical character recognition technology to recognize text regardless of the font style or the number of columns on a page, the company says. This enables users to take information from almost any hard copy source and put it directly into word processors, spreadsheets, databases or other applications.

The Typist enables the user to

input scanned, recognized material directly into whatever application is currently running on the user's computer. This direct input is made possible by a design methodology which interrupts the keyboard operation and allows data to enter the application via the keyboard buffer. Caere's software is capable of recognizing multicolumned pages, one column at a time. To prevent column overlap, the Typist recognizes the column that is in the physical center of the scanner and throws away the incomplete columns on either side. The hand scanner also automatically discards repeated text which occurs when two scans overlap by comparing the ASCII text of the last line of the first scan with the ASCII text of the first line of the second scan. This procedure is commonly referred to as "stitching." The Macintosh version of the Typist requires four megabytes of RAM and a Macintosh SE or any member of the Macintosh II family.

Ventura on the Mac

Ventura Software, San Diego, has completely rewritten its Ventura Publisher desktop publishing program. It will sell for $795 in the USA. The program will be able to exchange files or "chapters" with PC versions of Ventura: PC GEM version, Windows 3.0 version, and the OS/2 Presentation Manager Version. New features for the Ventura Publisher, Macintosh Edition include spell checker, undo/redo, apply/cancel with dialog box chaining, movable dialog boxes, 300 on-line help menus and file import/export capabilities, say Ventura.

Random House Encyclopedia

Microlytics Inc. has announced an electronic version of The Random House Encyclopedia, which uses the company's existing Inside Information retrieval engine. The new encyclopedia will be available both for the Macintosh and will cost $119 in the USA.

The encyclopedia is broken down into nine categories: Geography, the Arts, Science, Sports & Leisure, History, Philosophy/Religion/Mythology, Social Science, and Law and Government. Each category contains several subcategories and articles.

Radius Colour Calibrator

Radius, Inc., has announced version 1.2 of software for the Radius Precision Colour Calibrator, a calibration standard that will let software and video hardware vendors agree on colours. Compatibility with the new software was announced by E-Machines, Nikon, Oce Graphics USA, QMS, Letraset, Pantone, and Quark. In addition, Radius says monitors from Apple, Supermac and RasterOps are compatible with the Calibrator. Previously, the software supported only Radius monitors. The Radius Precision Colour Calibrator is a combination of software and optical sensing hardware that is placed in the screen. To calibrate a display, a user starts the program, and attaches the sensor to the screen. The Macintosh will adjust its colour to accurately reflect colour standards from Pantone, ANPA-COLOR etc. Radius Inc. 408-434-1010.

Apple/Adobe Agreement

Adobe Systems Announces Letter of Intent for New Licensing Agreement with Apple Computer

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Sept 4, 1990 (Mountain View, CA) Adobe Systems today announced the signing of a letter of intent with Apple Computer, Inc. to reach a new and expanded technology licensing agreement. Under the terms of the agreement, the two companies plan to continue to work together to provide new products based on Adobe PostScript® software and printer technology developed by Apple Computer.

"Adobe and Apple have together achieved success in providing users with innovative PostScript software products; printers, such as the Apple LaserWriters®, and PostScript language applications such as Adobe Illustrator® and Adobe Photoshop™. We are confident that the strengthening of the relationship between Adobe and Apple will lead to additional innovative products in the future," said John Warnock, Chairman and CEO, Adobe Systems Incorporated.

"Continuing to work closely with excellent third-party vendors such as Adobe has many benefits for Macintosh® customers," said Randy Battat, Vice President of product marketing. "Together we can offer customers the proven benefits of Adobe's PostScript software, and Apple can add value through new technologies such as the TrueType™ font format. Apple remains committed to TrueType and will work closely with Adobe to guarantee that all of our common customers' current investments in hardware and software will be protected and enhanced in the future."

Adobe Systems Incorporated, founded in 1982, is headquarted in Mountain View, CA. Adobe is the developer of PostScript, the industry-standard page description language for electronic printing and publishing and Display PostScript®, a device-independent graphics software component for computer displays. In addition, the company develops and markets a line of application software products. Revenues for 1989 were more than $120 million.

Apple, Macintosh and LaserWriter are registered trademarks and TrueType is a trademark of Apple Computer, Inc. PostScript, Display PostScript and Adobe Illustrator are registered trademarks and Adobe Photoshop is a trademark of Adobe Systems Incorporated.

Mac IIfx Q & A

This Macintosh IIfx Question and Answer file was downloaded from the Products Forum of AppleLink.

Macintosh IIfx Question & Answer

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Q: Do all Macintosh applications run on the IIfx?
A: Virtually all Macintosh applications run on the Macintosh IIfx, as do virtually all NuBus cards.

Q: Which applications will take advantage of the power of the MacintoshIIfx?
A: All Macintosh applications will take advantage of its power. Mainstream applications such as word processors and spreadsheets will be faster and more responsive, as will computing-intensive tasks such as scientific and engineering activities.

Q: How many new application-specific integrated circuits (ASICs) are on the Macintosh IIfx logic board?
A: There are a total of seven new ASICs. Two are Peripheral Interface Control (PIC) chips (I/O processors), which are dedicated to controlling low-level routines such as serial communications and floppy disk access. A Small Computer System Interface/ Direct Memory Access (SCSI/ DMA) chip controls the SCSI bus. The Operating System Support chip, a multipurpose ASIC, is dedicated to managing interrupts from external sources so they are synchronized with the internal bus. A Bus Interface Unit 30 chip and a Bus Interface Unit 2 chip drive NuBus processes and bus synchronization, respectively. A Fast Memory Controller (FMC) chip controls access from the cache, ROM, and RAM to the system's main processor. Four additional ASICs were also included in the Macintosh IIci design.

Q: With all this integration on the Macintosh IIfx, why didn't you put it in a three-slot design?
A: There are three key reasons:
• Many of our customers are OEMs and VARs, who take Macintosh technology and add significant value with special solutions. These solutions frequently require the system's six-slot design and Processor Direct Slot, either for maximum expandability or for maximum NuBus power.
• We wanted to provide an upgrade path for Macintosh II and Macintosh IIx owners.
• To achieve the fully balanced system design, we needed to integrate the built-in 32-bit cache, the Processor Direct Slot, and other features that wouldn't have been possible in a three-slot design.

Q:What are the benefits of this integration?
A: This high level of integration yields four major benefits:
• It opens up more space on the board for future functionality.
• It yields more efficient use of power.
• It increases overall system performance.
• It increases system reliability.

Q: What advantages does the Macintosh IIfx gain from the chips?
A: The PIC chips are important to the overall performance of the Macintosh IIfx system, because they balance the increase in clock speed (to 40 MHz) by ensuring that I/O processes keep pace with the processor's speed. In addition, they free the main processor from processing low-level interrupts. As a result, the PIC chips provide high levels of dedicated and predictable performance for standard I/O routines. For example, network routing techniques on the Macintosh IIfx are completely transparent to users working with any number of Macintosh applications. In future versions of the Macintosh operating system, the Macintosh IIfx will take greater advantage of the PIC chips' capabilities.

Q: Are you going to be shipping the Macintosh IIfx system with NuBus cards installed?
A: The cover of the IIfx has a special, improved design that allows Apple factories to preconfigure the systems with NuBus cards installed, in response to customer demands. As manufacturing processes evolve to utilize this hardware capability, we will start shipping systems with NuBus cards preinstalled.

Q: Are you shipping the Macintosh IIfx with system software pre-installed, as you did with the Portable?
A: System Software Version 6.0.5 and HyperCard Version 1.2.5 are pre-installed on Macintosh IIfx systems that have 80MB and 160MB internal hard disks, further enhancing ease of setup.

Q: Will the Macintosh IIfx run System Software Version 7.0
A: The Macintosh IIfx supports the virtual memory and 32-bit addressing capabilities of Version 7.0, and will be able to run the software when it becomes available.

Q: Why did you choose to use new DRAM for the Macintosh IIfx?
A: Optimizing the system's capability to run at 40-MHz requires balancing the system's entire architecture, including DRAM access. We chose the new 64-pin DRAM for the Macintosh IIfx because it provides a higher level of DRAM-access performance, by allowing the system to perform overlapped writes to DRAM concurrent with reads from the cache or ROM.

Q: Does this mean that Macintosh II and IIx customers who wish to upgrade to the Macintosh IIfx have to buy new DRAM, also?
A: Yes. The Macintosh IIfx-specific DRAM (which is faster and features a new SIMM module) is available from Apple and third parties.

Q: Are the I/O processors and the SCSI/DMA controller fully utilized by both A/UX and the Macintosh operating system?
A: A/UX takes full advantage of the I/O processors and the SCSI/DMA chip. The Macintosh operating system also recognizes significant benefits from the I/O processors and the SCSI/DMA, performing these devices relieve the 68030 CPU from low-level interrupts and routines for serial communications, Apple Desktop Bus processes, floppy disk drive control, and SCSI routines. Consequently, Macintosh IIfx users will experience smoother mouse movement and improved performance when using the system as a network router (managing the interaction between two separate networks), among other benefits. As the Macintosh operating system evolves, it will take even greater advantage of these hardware enhancements, just as A/UX does today.

Q: Are you creating a new bus with the PDS?
A: The PDS, by definition, is linked to the processor. So when a vendor changes a processor 's clock speed, of course, the PDS architecture must be changed as well. The Macintosh IIfx PDS is a superset of the Macintosh SE/30 PDS. As a result, it will be relatively easy for third parties to revamp a Macintosh SE/30 card to work on the Macintosh IIfx. We should point out that processor direct slots tend to be created for very task-specific applications and for a specific hardware platform.

Q: What's the internal storage strategy for the Macintosh IIfx?
A: We offer the IIfx in three standard internal storage configurations: a floppy-only version with a SuperDrive disk drive; a IIfx with a SuperDrive and an 80MB internal hard disk; and one with a SuperDrive and a 160MB internal hard disk. This provides customers and resellers with a range of options. We believe the most popular IIfx configurations will be the 80MB and 160MB versions, but by creating a floppy-only configuration, we give customers and resellers the option to configure a system with more internal storage, if they want it.

Q: Are there plans for a three-slot version of the Macintosh IIfx?
A: We expect the Macintosh IIfx to appeal to customers who have high-performance computing needs. And usually these customers want maximum expandability, too. So a six-slot system makes sense for them. The Macintosh IIci is a three-slot, 25-MHz 68030 system that has been very popular with people who want high performance in a small-footprint design.

Q: Can users upgrade from Macintosh II to the Macintosh IIfx?
A: A logic board upgrade is available for both Macintosh II and Macintosh IIx customers. All that's necessary is a logic board swap, as the form factor of the Macintosh IIfx is the same as that of the Macintosh II and IIx.

Q: Why is there no onboard video for the Macintosh IIfx?
A: Onboard video makes sense for a more mainstream product like the Macintosh IIci. But we believe our Macintosh IIfx customers will opt for as much power and flexibility as possible. One of the six NuBus slots can be used for the customer's video card of choice, including 24-bit color cards from Apple and third-party vendors. The Macintosh IIfx also runs the new family of Macintosh Display Cards, including the 8•24 GC card.

Q: Why is there no Ethernet interface on the logic board of the Macintosh IIfx?
A: Ethernet is an important direction for the future. But until we can fit the right Ethernet control logic on the logic board while offering the same level of plug-and-play functionality provided by LocalTalk, we will continue to support LocalTalk as our built-in networking interface of choice. Currently, NuBus provides a powerful and flexible connectivity solution. In addition AppleTalk® networking capability is built into every Macintosh system, including the Macintosh IIfx.

Q: Is the Macintosh IIfx a workstation?
A: At Apple Computer, we are in the personal computing business. That means we make broad-based tools that help people perform a wide range of mainstream and general-purpose tasks, from word processing to database management, and from desktop publishing to personal productivity. Clearly, as we add more power and functionality to our Macintosh architecture, Macintosh computers will include many of the features found in workstations. And consequently, Macintosh users will increasingly be able to perform many of the tasks that many workstation users perform today--especially in the scientific and engineering markets. And they'll be able to perform these tasks in the distinctive Macintosh fashion.

Q: When will Apple include a Motorola 68040 chip in a Macintosh computer.
A: We have had a long and successful relationship with Motorola and we plan to incorporate its new technology into our systems when it is appropriate for us to do so and when those components are available in enough volume to meet expected customer demand.

Products Forum
Macintosh

Mac Viruses

By John Norstad, author of the anti-virus program Disinfectant 2.0

The Viruses
The following sections describe all of the known Mac viruses.

The Scores Virus
According to news reports, the Scores virus was written by a disgruntled programmer. It specifically attacks two applications which were under development at his former company. Fortunately, neither of the two applications was ever released to the general public. Scores was first discovered in the Spring of 1988.

Scores is also sometimes known as the "Eric," "Vult," "NASA," and "San Jose Flu" virus.

There is an easy way to see if you have a Scores infection. Open your System folder and check the icons for the Note Pad and Scrapbook files. They should look like little Macintoshes. If they look instead like blank sheets of paper with turned-down corners, your software has been infected by Scores.

It is possible to be partially infected by Scores and still have normal Note Pad and Scrapbook icons. Consequently, we recommend running Disinfectant to make certain your system is not infected, even if you have normal icons.

Scores infects your System, Note Pad, and Scrapbook system files. It also creates two invisible files in your System folder named "Scores" and "Desktop ". You cannot see invisible files without the aid of ResEdit or some other utility application. Do not confuse Scores's invisible Desktop file with the Finder's invisible Desktop file; they have nothing to do with each other. The Finder's Desktop file lives at the root level on your disk, outside the System folder, while Scores's Desktop file lives inside the System folder. Also, Scores's Desktop file has an extra space character at the end of its name.

Scores does not infect or modify document files, only applications and system files.

Scores gets its name from the invisible "Scores" file that it creates.

Two days after your system becomes infected, Scores begins to spread to each application you run. The infection occurs between two and three minutes after you begin the application. The Finder and DA Handler usually also become infected. For technical reasons, some applications are immune to infection.

Scores does not intentionally try to do any damage other than to spread itself and attack the two specific applications. It does occupy memory and disk space, however, and this can cause problems all by itself. People have reported problems printing and using MacDraw and Excel. There are also several errors in Scores which could cause system crashes or other unexplained behavior.

There is a serious conflict between Scores and Apple's System Software release 6.0.4 and later releases. In System 6.0.4, Apple began using some resources with the same type and ID as those used by Scores. When Scores infects the System file, it replaces Apple's versions of these resources with the Scores viral versions of the resources. When Disinfectant repairs the file, it deletes the Scores viral resources, but it does not replace the Apple versions. In this situation, Disinfectant issues a special error message, telling you that the resulting file is damaged and should not be used. You should immediately delete the damaged System file and replace it with a copy from original locked Apple release disks.

The nVIR Virus
According to news reports, the nVIR virus first appeared in Europe in 1987 and in the United States in early 1988. At least one variation of the virus was written. We know of two basic strains, which we call "nVIR A" and "nVIR B."

We have reliable reports of an earlier version of nVIR which was malicious. It destroyed files in the System folder. This earlier version appears to be extinct, and we have not been able to obtain a copy.

nVIR is simpler than Scores. It infects the System file, but it does not infect the Note Pad or Scrapbook files, and it does not create any invisible files. nVIR begins spreading to other applications immediately, without the two day delay. Whenever a new application is run, it becomes infected immediately, without the two to three minute delay. As with Scores, some applications are immune to infection, the Finder and DA Handler usually also become infected, and document files are not infected or modified.

At first nVIR A and B only replicate. When the System file is first infected, a counter is initialized to 1000. The counter is decremented by one each time the system is started up and it is decremented by two each time an infected application is run.

When the counter reaches zero, nVIR A will sometimes either say "Don't panic" (if MacinTalk is installed in the System folder) or beep (if MacinTalk is not installed in the System folder). This will happen on system startup with a probability of 1/16. It will also happen, with a probability of 15/128, when an infected application is run. In addition, when an infected application is run, nVIR A may say "Don't panic" twice or beep twice with a probability of 1/256.

When the counter reaches zero, nVIR B will sometimes beep. nVIR B does not call MacinTalk. The beep will happen on a system startup with a probability of 1/8. A single beep will happen when an

infected application is run with a probability of 7/32. A double beep will happen when an infected application is run with a probability of 1/64.

It is possible for nVIR A and nVIR B to mate and reproduce, resulting in new viruses combining parts of their parents. Disinfectant will report that such offspring are infected by both nVIR A and nVIR B, and will properly repair them.

Unlike Scores, there is no way to tell that you have an nVIR infection just by looking at your system. You must run Disinfectant or some other virus detection tool.

One of the viral resources added to infected files by nVIR has the resource type "nVIR," which is how it got its name. As with Scores, nVIR occupies both memory and disk space, and this alone is enough to cause problems. In addition to the two basic strains of nVIR, a number of "clones" of nVIR B have appeared. These clones are all identical to nVIR B with the exception of a few very minor technical differences. Disinfectant recognizes all of these clones and treats them exactly the same as nVIR B.

The INIT 29 Virus

The INIT 29 virus first appeared in late 1988. We do not know much about its origin.

INIT 29 is extremely virulent. It spreads very rapidly. Unlike Scores and nVIR, you do not have to run an application for it to become infected. Also, unlike Scores and nVIR, INIT 29 can and will infect almost any file, including applications, system files, and document files. Document files are infected, but they are not contagious. The virus can only spread via system files and application files.

INIT 29 has one side effect which reveals its presence. If you try to insert a locked floppy disk on a system infected by INIT 29, you will get the following alert:

The disk "xxxxx" needs minor repairs. Do you want to repair it?

If you see this alert whenever you insert a locked floppy, it is a good indication that your system is infected by INIT 29.

As with Scores and nVIR, INIT 29 does not intentionally try to do any damage other than spread itself. Nevertheless, it can cause problems. In particular, some people have reported problems printing on systems infected with INIT 29. We have also experienced many system crashes, problems with MultiFinder, and incompatibilities with several startup documents on systems infected with INIT 29.

One of the viral resources added to infected files by INIT 29 has the resource type "INIT" and the resource ID 29, after which the virus was named.

The ANTI Virus

The ANTI virus first appeared in France in early 1989.

Unlike the other viruses, ANTI does not infect the System file. It only infects applications and other files which resemble applications (e.g., Finder). ANTI does not infect document files. It is less contagious than the INIT 29 virus, but more contagious than the Scores and nVIR viruses. It is possible for an application to become infected even if it is never run.

Due to a technical quirk, ANTI does not spread at all when MultiFinder is used. It only spreads when Finder is used.

There is an error in ANTI which causes it to slightly damage applications in such a way that Disinfectant cannot perfectly repair them. In other words, the application as repaired by Disinfectant is usually not identical to the uninfected original application. The damage is very minor, however, and in almost all cases it does not cause any problems. If you experience problems with an application which was infected by ANTI and repaired by Disinfectant, we recommend that you delete the repaired copy and replace it by an uninfected original copy. This is good advice in any case.

(For the technically inclined, the error in ANTI is that it clears all the resource attributes of the CODE 1 resource. Disinfectant has no way to know the values of the original attributes, so it leaves them cleared on the repaired application. The only effect of this error is that the repaired application may use memory slightly less efficiently than the original version, especially on old Macintoshes with the 64K ROMs.)

As with the other viruses, ANTI is non-malicious. It does not attempt to do any damage other than spread itself. As with all viruses, however, it can still cause problems.

The string "ANTI" appears within the virus, hence its name.

The MacMag Virus

The MacMag virus appeared in December, 1987. This virus is also known as the "Drew," "Brandow," "Aldus," and "Peace" virus. It was named after the Montreal offices of MacMag magazine, from where it originated.

Unlike the other viruses, MacMag does not infect applications, only System files. It originated as a HyperCard stack named "New Apple Products." The stack contained some exceptionally poorly digitized pictures of the then new Apple scanner. When the stack was run, the virus spread to the currently active System file. When other floppy disks containing System files were subsequently inserted in a floppy disk drive, the virus spread to the System files on the floppies.

Since applications are not infected by MacMag, it spreads much more slowly than the other viruses (because people share System files much less frequently than they share applications.) Even though the virus originated on a HyperCard stack, it does not spread to other stacks, only to System files.

MacMag was programmed to wait until March 2, 1988, the anniversary of the introduction of the Mac II. The first time the system was started up on March 2, 1988, the virus displayed a message of peace on the screen and then deleted itself from the System file. Since MacMag was programmed to self-destruct, it is unlikely that your software is infected with this virus. Disinfectant will nevertheless recognize it and repair infected files just in case you have some very old disks which might still be infected.

Disinfectant repairs both infected System files and infected copies of the original HyperCard stack. If you try to run the repaired stack, HyperCard will issue an error message.

There were two slightly different

versions of MacMag. The differences were very minor and both versions were programmed to behave identically. Disinfectant properly detects and repairs both versions.

The WDEF Virus

The WDEF virus was first discovered in December, 1989 in Belgium and in one of our labs at Northwestern University. Since the initial discovery, it has also been reported at many other locations, and we now know that it is very widespread. We know of two strains, which we call "WDEF A" and "WDEF B."

WDEF only infects the invisible "Desktop" files used by the Finder. With a few exceptions, every Macintosh disk (hard drives and floppies) contains one of these files. WDEF does not infect applications, document files, or other system files. Unlike the other viruses, it is not spread through the sharing of applications, but rather through the sharing and distribution of disks (usually floppy disks.) WDEF spreads from disk to disk very rapidly. It is not necessary to run an application for the virus to spread.

The WDEF A and WDEF B strains are very similar. The only significant difference is that WDEF B beeps every time it infects a new Desktop file, whereas WDEF A does not beep.

Although the virus does not intentionally try to do any damage, WDEF contains errors which can cause very serious problems. In particular, the virus causes the Mac IIci, the IIfx, and the Portable to crash almost immediately after insertion of an infected floppy. The virus also causes other Macs to crash much more frequently than usual and it can damage disks. The virus also causes problems with the proper display of font styles. In particular, it often causes problems with the "outline" font style. Many other symptoms have also been reported and it appears that the errors in the virus can cause almost any kind of problem with the proper functioning of your Macintosh.

You can remove a WDEF infection from a disk by rebuilding the Desktop file.

To rebuild the Desktop file on a hard disk, start up using Finder (not MultiFinder), keeping both the Command and Option keys held down throughout the startup process. You should be presented with an alert asking if you really want to rebuild the Desktop file. Click on the OK button.

To rebuild the Desktop file on a floppy disk, hold down the Command and Option keys while inserting the disk into a drive. Click on the OK button in the alert. It is often easier to get rid of a WDEF infection by simply rebuilding the Desktop file than it is to use Disinfectant.

For example, if the Disinfectant INIT warns you that a floppy disk is infected by WDEF, just eject the disk, unlock it, insert it again with the Command and Option keys held down, and click OK. This will rebuild the Desktop file on the disk and eliminate the virus. Beware, however, that comments you have entered in any file's "Get Info" box will be erased by rebuilding the Desktop file. Using Disinfectant to remove a WDEF infection does not result in the loss of these comments.

Even though AppleShare servers do not use the normal Finder Desktop file, many servers have an unused copy of this file. If the AppleShare administrator has granted the "make changes" privilege to the root directory on the server, then any infected user of the server can infect the Desktop file on the server. If a server Desktop file becomes infected, performance on the network will be very severely degraded. For this reason, administrators should never grant the "make changes" privilege on server root directories. We also recommend deleting the Desktop file if it exists. It does not appear that the virus can spread from an AppleShare server to other Macs on the network, however.

The WDEF virus can spread from a TOPS server to a TOPS client if a published volume's Desktop file is infected and the client mounts the infected volume. It does not appear, however, that the virus can spread from a TOPS client to a TOPS server.

If you use ResEdit, VirusDetective, or some other tool to search for WDEF resources, do not be alarmed if you find them in files other than the Finder Desktop files. WDEF resources are a normal part of the Macintosh operating system. Any WDEF resource in a Finder Desktop file, however, is cause for concern.

When using Disinfectant to repair WDEF infections, you must use Finder instead of MultiFinder. Under MultiFinder, the Desktop files are always "busy," and Disinfectant is not able to repair them. If you try to repair using MultiFinder, you will get an error message.

In addition to the two known strains of the WDEF virus, Disinfectant will also detect and repair other strains which may exist but have not yet been reported. If an unknown strain is detected, Disinfectant places the following message in the report:

File infected by an unknown strain of WDEF

The ZUC Virus

The ZUC virus was first discovered in Italy in March, 1990. It is named after the reported discoverer, Don Ernesto Zucchini. ZUC only infects applications. It does not infect system files or document files. Applications do not have to be run to become infected.

ZUC was timed to activate on March 2, 1990 or two weeks after an application becomes infected, whichever is later. Before that date, it only spreads from application to application. After that date, approximately 90 seconds after an infected application is run, the cursor begins to behave unusually whenever the mouse button is held down. The cursor moves diagonally across the screen, changing direction and bouncing like a billiard ball whenever it reaches any of the four sides of the screen. The cursor stops moving when the mouse button is released.

The behavior of the ZUC virus is similar to that of a desk accessory named "Bouncy." The virus and the desk accessory are different and they should not be confused. The desk accessory does not spread and it is not a virus. ZUC does spread and it is a virus.

ZUC has two noticeable side effects. On some Macintoshes, it causes the desktop pattern to change. It also often causes long delays and an unusually large amount of disk activity when infected applications are opened.

ZUC can spread over a network from individual Macintoshes to servers and from servers to individual Macintoshes. Except for the unusual cursor behavior, ZUC does not attempt to do any damage. ZUC does not change the last modification date when it infects a file, so you cannot use the last modification dates in the Disinfectant report to trace the source of a ZUC infection.

The MDEF Virus

The MDEF virus was first discovered at Cornell University in May, 1990. It is also sometimes called the "Garfield" virus. MDEF infects both applications and the System file. It does not infect document files. The Finder and DA Handler also usually become infected. The System file is infected as soon as an infected application is run. Other applications become infected as soon as they are run on an infected system.

MDEF does not intentionally attempt to do any damage, yet it can be harmful. It does not beep, display messages or pictures, or do anything other than spread from file to file. For technical reasons, the MDEF virus only spreads on some kinds of Macintoshes. It causes the Mac 128K and the 512K to crash. It spreads successfully on the 512KE, Plus, SE, SE/30, II, IIx, and IIcx. On the Mac IIci, IIfx, and the Portable, it spreads from infected applications to uninfected system files, but it does not spread from infected systems to uninfected applications.

The MDEF virus has an unfortunate interaction with Vaccine. On Vaccine-protected systems, if an infected application is run, Vaccine properly notifies you of the attack, but it blocks only part of the attempt by the virus to infect the System file. The virus cannot spread from the System file to applications in this situation, but the System file is damaged and menus no longer work. When you try to pull down a menu, no menu comes down. Menus continue to work only in infected applications. They do not work in the Finder or in uninfected applications. Disinfectant will correctly detect and repair these kinds of damaged System files.

GateKeeper is totally effective against the MDEF virus. It successfully blocks the attempt by the virus to infect the System file. The System file is unchanged. Menus do not work properly in infected applications, but they do work properly in the Finder and in uninfected applications. This menu behavior is the exact opposite of what happens on Vaccine-protected systems.

The MDEF virus is named after the type of resource it uses to infect files. MDEF resources are a normal part of the Macintosh system, so you should not become alarmed if you see them with ResEdit or some other tool.

The MDEF and WDEF viruses have similar names, but they are completely different and should not be confused with each other.

The Frankie Virus

The Frankie virus is quite rare. It appeared in Europe several years ago, but we only recently obtained a copy for analysis. Frankie only affects some kinds of Macintosh emulators running on Atari computers. We have reports that it was targeted against pirated versions of the Aladin emulator. Frankie does not spread or cause any damage on any of the regular Apple Macintosh computers.

After a time delay, Frankie draws a bomb icon and the message "Frankie says: No more piracy!" at the top of the Atari screen, and then causes the Atari to crash.

Frankie only infects applications, not system files or document files. The Finder also usually becomes infected. Applications do not have to be run to become infected. For technical reasons, the virus only spreads under Finder, not MultiFinder.

This article is Copyright © 1988, 1989, 1990, Northwestern University. It is part of the documentation for Disinfectant 2.0.

Disinfectant 2.0 is available from the Macintosh Library on Disk 400 AppleXtras Mac 4.

Switching Between the Finder and MultiFinder

Copyright 1990, Apple Computer U.K. Limited

You can start the MultiFinder from the Finder without restarting your Macintosh by holding down the Option and Command keys and simply double-clicking on the MultiFinder icon, in the system folder. This only activates the MultiFinder temporarily. Next time you start (or restart) your Macintosh the Finder will be active.

To disable MultiFinder when you start (or restart) your Macintosh, press the command key until the menu bar appears, then let go. This will turn off the MultiFinder for this session only.

Select 'set startup ...' in the Special menu to toggle between Finder and Multifinder permanently. Although the change will only become effective the next time you start (or restart) your Macintosh.

Products Forum
Macintosh
System Software
13/9/90

Downloaded from the Products Forum of AppleLink.

Will the Virus on the Mac END?

New York State Police are investigating the confession of a teenage youth believed to have been responsible for the writing of many viruses that have plagued the Macintosh. He is now said to be helping with their enquiries.

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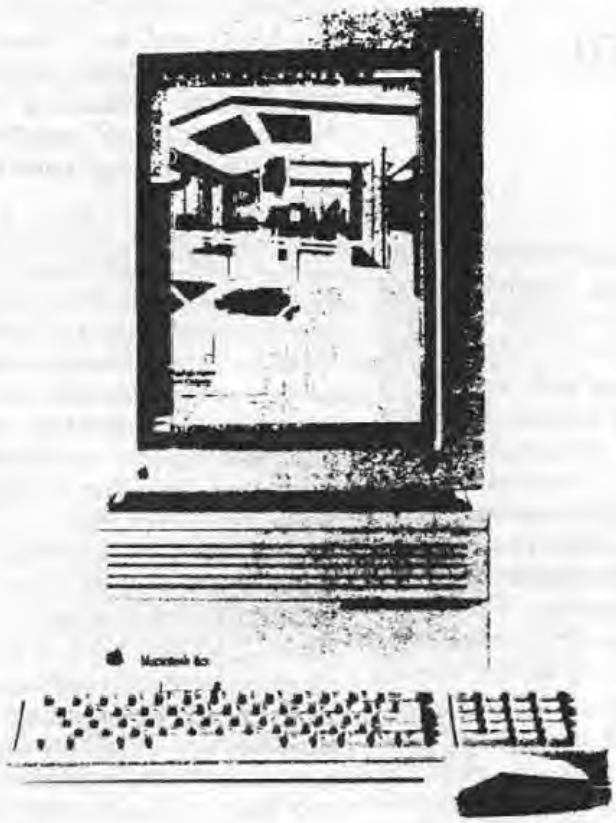

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MORE 3.0

The new version of MORE from Symantec.

Information from Symantec on the new version of MORE with enhanced desktop presentation capabilities.

In April 1990 Symantec Corporation announced MORE 3.0, a new version of its powerful Macintosh outlining and presentations product. MORE 3.0 provides managers with a fast way to organise and present ideas. MORE combines outlining, presentations, word processing, and business charting to create powerful business communications software..

"MORE 3.0 is designed to serve the manager's total business communications needs," said Gordon E. Eubanks, Jr., president and CEO.

"Symantec takes desktop presentation software to a new level by providing all the tools needed for day-to-day communications."

Enhanced desktop presentation capabilities.

MORE 3.0 contains many new features designed to increase its power while improving its ease-of-use. The Chart Tutor(™) is a step-by- step guide to assembling a presentation. Designed for the inexperienced presenter, Chart Tutor provides a task-oriented approach to completing a presentation without compromising the power or flexibility of MORE. Chart Tutor also benefits the experienced presenter by acting as a check list to ensure all tasks have been completed.

A new text ruler enhances the word processing capabilities of MORE 3.0. The ruler provides users with a visual guideline for easier formatting and layout. It also provides tab options, including decimal tabs and customised spacing for outlines and paragraphs. A selection bar allows users to easily select headlines to be formatted and styled. . With the new Library Browser, users can preview any layout prior to selecting it. The Browser allows the user to look for rule sets, outlines, layouts, objects, pictures and colour sets, and apply them to existing documents. MORE 3.0 comes with a library of over 100 professionally formatted business documents and layout styles. . New colour and graphics capabilities allow the MORE 3.0 user to create fully-customised, professional-looking presentations. Colour mixing allows customised colour sets to be saved on a palette, which can be stored in a library. With the gradient editor, backgrounds and fills may be created by blending any two colours. The tool palette allows creation of one-step graphic effects such as gradients, bevelled edges, and polygon and Bezier tools. . .MORE 3.0 includes MORE Graph, a customised program for creating financial charts. MORE Graph contains a variety of chart types including bar charts, line graphs, pie charts, and scatter graphs, as well as graphic enhancements such as drop shadows, 3D perspective and colour fills. Users can choose from over 40 pre-formatted charts or create customized charts and save them for future use.

More power and flexibility

MORE 3.0 files can now be sent directly to any Autographix Service Centre for overnight production of 35mm slides. MORE 3.0 also contains translators for files from MacWrite, MacWrite II, Microsoft Word 3.0 and 4.0, WordPerfect, WriteNow, MacPaint, GrandView (Symantec's outliner for the IBM PC), Ready!, ThinkTank, PICT and EPSF files, and any earlier MORE files.

Included with MORE 3.0 is a book called "Making the Most of MORE," which discusses the practical business applications of MORE. This book offers solutions to key management activities including planning, writing business reports, proposals and presentations. The templates for these documents and presentations are included in a MORE library. Using this book, a new user can put MORE to work in a short period of time. . ."MORE 3.0 has evolved to meet the needs of today's manager," said David Whitney, director of business communications products. "The features in MORE 3.0 are a result of Symantec's commitment to listen and respond to the needs of its customers for a fast and effective outlining and presentation tool."

Pricing and availability

Symantec Corporation have been shipping MORE 3.0 since May 1990 to its network of software dealers and distributors. MORE 3.0 requires a Mac Plus or better, one megabyte of RAM, System 6.0 or later, one 800K drive and a hard disk.

The suggested retail price of MORE 3.0 is $395. The upgrade price for MORE II(™) users is $50 plus shipping and handling. Customers who purchased MORE II after March 10, 1990 will receive a free upgrade.

For upgrade information, users can contact Symantec's Customer Service department (800-441-7234).

HOPS

The Heuristic Optimised Processing System

by Bob Perez.

About a year and a half ago, I discovered a very interesting technology while working as Manager of the Business Software Evangelism Group for Apple Computer. A fellow from Ebbars Microcomputing Company in Miami called to tell me about a new database engine that his company had developed, one which he claimed would "set a revised standard" for all database systems in existence. I was used to hearing extraordinary claims, so I invited him out to Cupertino for a "show me" session.

I wasn't prepared for what I saw. It was running at that time on an Apple II, so I invited David Eyes (one of our primary Apple II gurus) along to make sure that these folks weren't using smoke and mirrors. To bolster their credibility, they brought along print-outs 2 feet thick of 65,000 records they had created and asked me to scan through the document and locate any desired record, and they would find it within milliseconds. Before our eyes, they indexed, sorted, and retrieved records on any number of criteria, in astonishingly fast times. David pulled the plug and watched them reboot their software. I asked for more complicated sorts and indexing. No matter what we did, they were able to meet our challenges. We were impressed.

We set them up with a Mac II and asked them to bring the system into the Mac environment. They completely rewrote their system for Mac and in July of 1988 we picked up discussions again. This time, I was more than just impressed. Over the course of the next few months I left Apple and joined forces with the company to help bring the technology to market. I'm happy to be able to now announce HOPS—The Heuristic Optimized Processing System.

HOPS was developed over the course of 6 years from the ground up by a couple of men whose passion for mathematics and science led them on the pursuit of an intellectual challenge. The challenge was to come up with a better sorting algorithm, one which did not suffer from the constraints of existing systems. If you've ever had to wait for a database sort, you know how badly such a development is needed. In developing HOPS, the authors threw out the books on conventional sorting techniques and developed a system utterly and entirely unique.

All sorts naturally take a certain amount of time depending on the number of records being sorted. This relationship can be illustrated by a graph in which the number of records (N) is on the horizontal axis, and time is on the vertical axis. Typically, the performance curve of most sorts heads upward very fast, indicating that as the number of records increases, the time to sort increases as some rapidly-increasing factor of the number of records being sorted. The worst performing sorts demonstrate a curve that can be expressed as "N Squared", where the time to sort N records increases exponentially.

According to established literature, the fastest known sorts are constrained by the curve represented by "N log N" where the time to sort rises logarithmically as the number of records increases.

Thus, "N log N" has been widely regarded as something of a performance limit, representing the least amount of sorting performance degradation possible using general-purpose sort algorithms. While there are some instances in which the performance degradation can improve on "N Log N", algorithms using such techniques invariably suffer tremendous side effects or numerous pathological cases, rendering them virtually useless in the real world. According to established mathematical literature, the curve represented by "N Log N" continues to represent the best performance that can be hoped for in a general-purpose sort.

This is precisely why mainframes have been utilised to process the huge, voluminous databases required by corporate customers. Because they utilise huge storage systems and extremely fast parallel processing techniques, mainframes allow corporate DP professionals to live with these performance shortcomings and to justify their huge data processing budgets (according to Datamation magazine, top U.S businesses will spend $32 billion this year on corporate data processing). So far, that's the only choice they've had.

That is, until HOPS came along.

HOPS is a major scientific breakthrough that completely throws out all former standards regarding database performance in a number of areas, including sorting. The most remarkable feature of HOPS is that it is NOT constrained by the "N Log N" performance curve. In fact, our comprehensive testing data indicate that HOPS is almost completely linear in performance, and that as the number of records increases, the time it takes to sort those records increases at a factor much, much less than the function "N Log N". Our initial tests show that for a given set of constants, we are sorting at speeds more than twice as fast as one would expect from full compliance with the "N Log N" barrier. In a world where the very best database systems approach—but never reach—this theoretical speed limit (and then only under optimal, highly unnatural conditions), HOPS stands out as far and away the fastest data management system known.

Another significant breakthrough is the dynamic HOPS indexing scheme, which assures that we can find any given record in no more than one disk access. You cannot, of course, do better than one seek to the disk and we are aware of no existing technology capable of making this claim. This 1-seek performance applies to multiple-gigabyte databases with billions of records. There are no known pathological cases or limitations whatsoever.

The system is designed around a complete set of data handling primitives, tokenized into a language that can be interfaced to any existing language (for example, we have been using MPW C as the current host language). All of the relational operations are available, including complex joins, projections, unions, etc., and all mathematical operations and Boolean expressions are available at every level of organisation and retrieval.

Because of HOPS' almost total linearity, our performance figures do *not* deteriorate appreciably with an increased number of records. Try loading 50,000 records into your current database. Or 75,000. If you can, try 100,000. With most micro-based products it's simply not feasible to try this, despite published specs claiming higher capacities. With most of these systems, performance grinds to an excruciating halt once you've reached more than a few tens of thousands of records.

For example, using one of the leading Macintosh database products, I attempted to import 80,000 52-byte records into a newly created database. I gave up waiting after 7 hours, and had only imported 22,000 records. HOPS was able to import the entire 80,000 records in 3 minutes. But the real test came in trying to organise the data. If you've ever tried sorting or indexing a good-sized database, you know what it means to wait. With most popular products today, you can expect a typical sorting operation on 100,000 records to take hours. We recently had the pleasure of demonstrating to the editors of MacWeek the organising of 100,000 67-byte records. We completely sorted, indexed and wrote the organised output to disk in less than one minute. With these volumes of data, disk fragmentation can become an issue and after re-formatting both of our hard disks and re-creating the data files, our total time for 100,000 records during a demonstration for the InfoWorld editors was 33 seconds. According to InfoWorld, this was more than 100 times faster than anything their labs had ever encountered among Mac database products. In other operations we were able to benchmark more than 1,000 times faster than products generally regarded as setting the performance standard in the microcomputer database community.

On February 6th and 7th, we demonstrated our system to Apple Computer, using their own data downloaded from its corporate mainframes– data we had never seen or touched. The Apple MIS professionals actually brought in their 9-track mainframe tapes and converted them from EBCDIC to ASCII on the fly, using the Qualstar system, and gave us 360,000 300-byte records with which to work. During the course of the two-day demo, we sorted, indexed, organised and retrieved records to their heart's content. The reaction we feared was "well, we've seen this before, this is nothing new". What we got instead was "how on earth are you doing it?"

But even 360,000 records is nothing in the data processing community. So we went the next step and demonstrated something truly remarkable. I believe this is the first time in recorded history that anyone's been bold enough to demonstrate to the press on a microcomputer the sorting and indexing of 4 million records. That's 268 megabytes of records. We asked the assembled members of the press to try and locate any record in the database and they did so instantaneously. They were able to travel to the beginning, the middle, and end of the file without any performance delay whatsoever. They appended records and saw the indexes updated instantly. Whenever a specific record was sought, it appeared in each case as quickly as QuickDraw was able to put it on the screen.

Because of our linear performance, where we really shine is in the area where existing database models simply can't go. Give us 100 million records and watch us outperform even the most powerful mainframe-based systems.

So what does this mean for Macintosh? Simply put, it means that it is now possible to perform operations using HOPS on a Macintosh that have never even been possible on any micro before. Any job that requires the organisation and interrogation of huge amounts of data will benefit extraordinarily from HOPS. Corporate database maintenance, government operations, mailing house list maintenance, customer tracking, hotel and airline reservation systems, you name it– there are no known limits.

Because of our high degree of confidence in our system, we are willing to make the following extraordinary offer to the business community. We are looking for the right customers to take advantage of our technology and to help get the word out about HOPS. The perfect customer is a business entity with enormous data handling requirements currently demanding the use of mainframes in order to achieve the required performance. That is, a corporate customer who currently spends many millions of dollars each year leasing mainframes simply because they need mainframe performance. We will come to their site and install our system at no risk and at no cost to them whatsoever. On our own dime, we'll bring in our experienced systems and applications programmers and design a complete, parallel system requiring no down-time on their part. When they are convinced that we are running a parallel operation, and only then, they can then pay our fee. I'm not prepared to make a specific commitment here as to fees, but I envision compensation based on some percentage of the savings to the customer. For example, we'll set up our system and charge the customer half of what they're currently paying for the same job.

In such a scenario, the customer gets performance at least equivalent – and more likely better – than they had previously. They risk nothing, and it costs them nothing to try out the system. When they are satisfied with the system, their DP costs will be cut in half. It's hard to see how anyone could afford to turn down such an offer.

While this is our primary strategy for initially marketing the HOPS technology, we are open to all suggestions and consider every possibility negotiable. We have contacted various hardware manufacturers including NeXt, Sun, and Apple, and we will continue to entertain any interesting possibilities.

There is the temptation for some people to call this simply a database engine with fast sorting and indexing– big deal. When the transistor was invented, some people reacted similarly. Solid state tubes – so what. The implications are identical.

For years, it has been said that software has been lagging behind hardware in innovative technology,

and as this country has seen its hardware advances equalled and surpassed in foreign markets, it has had to sit back and watch even its dominance in the software markets decline as the technology stagnates. Faster hardware has generally been able to overcome the limits of existing software, so the incentives have not existed for revolutionary breakthroughs to occur. But as we approach diminishing returns in hardware advances, the software revolutions critical to future advances are needed now more than ever. I believe that HOPS is the first manifestation of a trend in that direction—the software breakthroughs are just beginning.

For further information, please contact me or my associates at Ebbars at the locations described below.

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Compuserve ID: 70007,2336
AppleLink: D2712

Harvey Goodman
Ebbars Microcomputing Company
800 West Avenue
Miami Beach, Florida 33139
305-672-2361

This article was downloaded from CompuServe.

Apple looks for increased market share...

With the American economy facing a recession, the battle between The Big Two is going to get stronger — making pricing better for us all (we hope!).

It usually takes about 6 months or so, after the launch of new products, before their prices fall as the computer market adjusts in response to the forces of supply and demand.

With IBM and others still leading over Apple sales in the States, Apple is hoping the three new machines (due to be launched this month) will lead to a better sales performance in the Education Market in particular — recent years have averaged around the 35% mark.

The three new machines, in which they place so much faith, are:-

Macintosh Classic; Macintosh LC; Macintosh IIsi

We'll have to wait and see whether their hopes will be fulfilled.

...and repurchases shares

Apple Computer Inc. is believed to have repurchased over 30 million of its own shares during the last four years and, with the American market in a depressed mood, the company seems poised to continue with its repurchasing programme.

This reduces the funds available for other types of investment, of course; but it presumably improves Apple's share price — at least in the short term!

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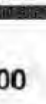
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See advertisement earlier in this magazine for more products and special prices

MacWrite II v WriteNow 2.0

A comparison between MacWrite II and WriteNow 2.0

Spelling Checker

- **Observations**
- **MacWrite II**
  - ◊ Identifies the misspelled words quickly
  - ◊ Can take a while to generate list of alternatives
  - ◊ This list generation CAN be cancelled by clicking the mouse in v1.1
  - ◊ List seems to be complete
  - ◊ Includes "context box"
  - ◊ Don't have to worry about moving the window to see the sentence
  - ◊ Learn individual words only
- **WriteNow 2.0**
  - ◊ Finds misspelled words quickly as well
  - ◊ Generates suggestion list on demand
  - ◊ List is usually very quick, but not cancellable (as far as I can tell)
  - ◊ Must explicitly Find each misspelled word
  - ◊ List seems to be relatively complete
  - ◊ Seems to have missed a few possibilities that MWII knew about, but it depends on the repertoire in the dictionary, I'm sure
  - ◊ Must move window to look at context, if necessary
  - ◊ Can learn a selection
- **Suggestions**
- **MacWrite II**
  - ◊ Add ability to "create" a dictionary by learning selections of text
- **WriteNow 2.0**
  - ◊ Find first word automatically
  - ◊ Make Find button the default (hit carriage return when spelling window active)
  - ◊ If it already is, outline the button

Type Styles

- **Observations**
- **MacWrite II**
  - ◊ Has standard ones (bold, outline, shadow, italics, underline)
  - ◊ Does not include condensed and expanded
  - ◊ Includes small caps, word underline, double underline, strike through, superscript, and subscript
  - ◊ Includes colour
  - ◊ Includes user-definable styles stored in documents
- **WriteNow 2.0**
  - ◊ Also has standard ones (see above)
  - ◊ Includes condensed and expanded
  - ◊ Includes superscript and subscript
  - ◊ Does not include other MacWrite II type styles
  - ◊ No colour
  - ◊ No user-definable styles
- **Suggestions**
- **MacWrite II**
  - ◊ Add condensed and expanded
  - ◊ Put all styles in menu, as well as dialog
- **WriteNow 2.0**
  - ◊ Add other "frilly" MacWrite II styles
  - ◊ Add text colour
  - ◊ Add user-defined style sets

Ruler Capabilities

- **Observations**
- **MacWrite II**
  - ◊ Markers include left margin, right margin, paragraph indent, tabs
  - ◊ Tabs include left, right, centre, character align
  - ◊ Fill between text can be any character ("." handy)
  - ◊ Markers drag smoothly only
  - ◊ Markers precision settable via dialog
  - ◊ Standard justification modes
  - ◊ Line height settable from ruler or from dialog
  - ◊ Has flexible/fixed height selection capability
  - ◊ Line height in inches, centimetres, lines, or points
  - ◊ Ruler fixed portion of standard window
  - ◊ Can be partially or completely hidden
  - ◊ Paragraph indent can be moved separately from margin
- **WriteNow 2.0**
  - ◊ Markers include left margin, right margin, paragraph indent, tabs
  - ◊ Tabs include left, right, centre, and decimal
  - ◊ Fill between text & tab stop can be only whitespace
  - ◊ Markers drag gridded unless option key held down
  - ◊ Markers only settable via dragging
  - ◊ Has "Identical" and "Relative" modes
  - ◊ Not sure what they are, but best guesses:
    Identical = replace absolute for entire selection
    Relative = move entire selection same relative amount
  - ◊ Has standard justification modes (centred, flush-left, flush-right, flush-margins)
  - ◊ Has line height selections, including increment and decrement
  - ◊ Has "flexible/fixed" height selector
  - ◊ Line height in points only
  - ◊ Ruler separate window
  - ◊ Paragraph indent moves with left margin
- **Suggestions**
- **MacWrite II**
  - ◊ Gridded dragging can be nice
  - ◊ If "Identical" and "Relative" modes are useful, add 'em.
- **WriteNow 2.0**
  - ◊ Allow line height selectability in terms of line - easier to specify double or triple spacing
  - ◊ Expand decimal tab to character alignment tab

◊ Allow tab pad character to change
◊ Permit paragraph indent marker to remain in place when left margin marker is moved

Headers/Footers

- **Observations**
- **MacWrite II**

◊ One each for entire document
◊ Can put any text within
◊ Edits like normal text in normal text area
◊ No separate window like MacWrite 5.0 and earlier

- **WriteNow 2.0**

◊ Multiple headers & footers for document
◊ Edits in separate window
◊ Unlike MacWrite 5.0, window includes list of headers/footers
◊ Can view places where headers/footers change
◊ Can put any text therein

- **Suggestions**
- **MacWrite II**

◊ Allow multiple headers/footers
◊ Permit gang-changing of each

- **WriteNow 2.0**

◊ Allow headers/footers to be edited like regular text by clicking on text in document
◊ Clicking in header/footer being equivalent to View Headers/Footers is sufficient.

Footnotes

- **Observations**
- **MacWrite II**

◊ Multiple footnotes allowed anywhere
◊ Numbered sequentially through the document, or marked as you wish
◊ May be "endnotes" instead of footnotes
◊ Cannot change font/size of marker
◊ Edits like normal text
◊ Cannot gang-change footnote formatting

- **WriteNow 2.0**

◊ Multiple footnotes allowed
◊ Sequential numbering only
◊ Can change number in footnote text, but not in footnote marker
◊ Can disable sequential numbering, but must supply label explicitly (i.e. as superscripted text in the format you wish, rather than automatic labelling)
◊ No endnote capability that I can see
◊ Marker text attributes can be changed in footnote, but not (apparently) in text
◊ Edits in separate window
◊ Can gang-change formatting

- **Suggestions**
- **MacWrite II**

◊ Permit gang-changing of footnote ruler settings
◊ Permit mixing of footnotes and endnotes
◊ Permit changing of marker font

- **WriteNow 2.0**

◊ Permit marking footnotes with any character(s) without forcing explicit text being added. (I.e. have label be bound to footnote marker)
◊ Add endnotes
◊ Permit editing inline

Hyphenation

- **Observations**
- **MacWrite II**

◊ Automatic hyphenation
◊ Set as flag - once done, is applied throughout
◊ Fast to bring up, not noticeable afterwards
◊ List of exceptions available to edit
◊ Changes made to exception list get applied very quickly

- **WriteNow 2.0**

◊ Manual hyphenation through the use of "soft hyphen" markers
◊ Once entered, hyphenation occurs automatically (and quickly)
◊ No known easy way to remove soft hyphens all at once

- **Suggestions**
- **MacWrite II**

◊ Keep it as it is!

- **WriteNow 2.0**

◊ Consider adding auto-hyphenate function similar to MWII's

Page Breaks

- **Observations**
- **MacWrite II**

◊ Automatic page breaking based on page setup
◊ Manual page breaks may be inserted

- **WriteNow 2.0**

◊ Has same as MacWrite II, plus below
◊ Can force text to stay on same page

- **Suggestions**
- **MacWrite II**

◊ Add capability to force selected text to stay on same page

- **WriteNow 2.0**

◊ Can't think of anything to add

Indentation

- **Observations**
- **MacWrite II**

◊ No extra indentation options outside of what's available in ruler

- **WriteNow 2.0**

◊ Can indent to tab
◊ Merely changes the ruler for you

- **Suggestions**
- **MacWrite II**

◊ It would be nice to have some of the ruler changing features available as command-key equivalents (much like the left, centre, and right alignment keys of MacWrite 5.0)

- **WriteNow 2.0**

◊ Also needs left, centre, & right returned.

Search/Replace

- **Observations**
- **MacWrite II**

◊ Has standard find/replace
◊ Word boundaries may be enforced
◊ Case may be ignored
◊ May search on text attributes as well as (or in place of) text

- **WriteNow 2.0**

◊ Can only search on text
◊ Word boundaries as MacWrite II
◊ Case as MacWrite II

- **Suggestions**
- **MacWrite II**

◊ ***GREAT*** as is!

- **WriteNow 2.0**

◊ Adding search on attributes would be handy

Downloaded from Claris Forum on CompuServe.

Info on Claris CAD 2.0

Claris announces major upgrade to Claris CAD

Claris Corporation announced that Claris CAD 2.0, the new version of its best-selling professional design and drafting software for the Macintosh, is now shipping and available at authorised Claris dealers.

The new version offers Macintosh users more than 100 powerful new features, additional support of industry drawing and dimensioning standards and major enhancements to the user interface, including "Graphic Guide," an interactive drawing feature designed to provide on-screen feedback for enhanced drawing precision.

"If ever there was a product that could radically broaden the market, remove the mystique of CAD, and offer long-sought drawing power to everyone, Claris CAD 2.0 is it," said Steve Johnson, Claris UK Managing Director. "For the new Graphic Guide feature alone, the time taken for potential customers to see a demonstration, or at least get hold of the video, will be time well invested. It could change their view of CAD forever".

Strong Customer Praise for Claris CAD 2.0

Early users of Claris CAD 2.0 are already praising the program's powerful new functionality.

"The people at Claris have listened to suggestions from users of version 1.0 of Claris CAD and, by including the intelligent interface of the Graphic Guide, have created an extremely easy-to-use program with sufficient power for any serious 2D CAD user," said Mike Scott, Scott Strangeway Partnership, in Leicester.

"As product designers, our drawings need to meet standards such as BS308," said Kanwal Sharma, partner, Lewis Sharma Design, in Bristol. "With Claris CAD 2.0's built-in support for various international drawing standards, support of ANSI characters, and geometric tolerancing, life could not be easier."

"There are a host of new features to increase productivity, but in addition to the automatic snap and preview features of the Graphic Guide, the new clean-up tool ensures speedy and unerringly accurate intersections and 'clipping' of objects, lines and walls. I have found that the new features of Claris CAD 2.0 have halved the time it takes me to create architectural working drawings."

"As specialists in architectural CAD we recognise Claris CAD 2.0 as a major advance in 2D drafting,' said Scott Law, Director of Calibre Microsystems, in Edinburgh. "Its exemplary user interface and short learning span makes it eminently suitable for practices embarking on CAD for the first time. In our experience, new users can be fully productive and producing working drawings in a matter of weeks."

New and Improved Features

With over 100 new features, Claris CAD 2.0 offers design and drafting professionals unprecedented ease of use and comprehensive 2D functionality. One of the most significant enhancements to the program is Graphic Guide, an intelligent capability that thinks a step ahead of the user. The Graphic Guide tracks and interprets the user's mouse motions, and automatically guides the user to accurate drawing and editing. For example, when a user is trying to draw a tangent, perpendicular, or projection from one view to another, Graphic Guide anticipates the user's intent from the cursor movements, and automatically guides the user to complete the task, freeing the user from having to make precise mouse placements. And the user can override the Graphic Guide at any point. With the Graphic Guide new users can quickly learn computer-aided design and drafting and experienced CAD users gain a significant increase in productivity.

Graphic Guide advances the user interface from its role as a passive environment to an active partner which greatly facilitates awkward and complex tasks. By intelligently anticipating the user's intent, Graphic Guide helps navigate through complex tasks. For design and drafting, Graphic Guide means a more natural metaphor, greater ease of learning and higher productivity. New mechanical design and drafting functions include the addition of geometric dimensioning and tolerance symbols, which meet ANSI Y14.5 drafting standards, and ordinate dimensioning capabilities that simplify dimensioning from a common reference point.

"The combination of Macintosh and this new version of Claris CAD, with its Graphic Guide facility, sets a new standard in terms of ease-of-use for computer aided design," said Nigel Turner, Marketing Manager, Design and Modelling, Apple Computer U.K. Ltd. "We believe that it will help accelerate usage of CAD techniques by engineers, architects and designers."

New architectural, engineering and construction (AEC) design functionality includes enhanced support of dimensioning and sheet size standards, and adds "intelligent wall" capabilities for creating, reshaping, dimensioning and filling wall objects. In addition, Claris CAD 2.0 also includes a comprehensive context-sensitive on-line help system based on the Claris HyperHelp technology that is included in other Claris applications, support for A/UX 2.0, the Apple Unix operating system for the Macintosh, and Claris XTND, an open file translation architecture that allows users to directly import and export text, graphics, database and other application files across multiple platforms.

Price and Availability

Claris CAD 2.0 is available now from authorised Claris dealers. Claris CAD 2.0 has a suggested retail price of £675. The product comes with a comprehensive tutorial videotape and workbook, designed to help new users learn the program's capabilities within a short period of time.

Claris CAD 1.0 owners can purchase an upgrade to Claris CAD 2.0 for £60. Claris MacDraw™ II software owners can purchase Claris CAD 2.0 for £350. The Claris Graphics Translator, which includes both IGES and DXF translators, can be purchased for £225. Both products are available from authorised Claris dealers or Frontline Distribution, Intec 1, Wade Road, Basingstoke, Hants RG24 ONE. Tel: 0256.463344.

For upgrade order forms and instructions call 0800.899005.

Amazing Paint

CE Software Releases Amazing Paint™

CE Software was pleased to debut Amazing Paint™ at MacWorld Expo in San Francisco, 1990. Amazing Paint is a low cost, full-featured black and white paint program. CE Software plans to sell it's new program for $99.95.

"CE Software likes to keep their products up-to-date because we feel strongly about supporting our customers," said John Foster, the Amazing Paint Product Manager. "MacBillboard hasn't been updated since 1986. Rather than revising the MacBillboard code, we created an entirely new program, using what we've learned from customer feedback."

A market study done by CE Software revealed that there was a gap in the paint program market. Mainstay programs like SuperPaint™ and DeskPaint™ have become too costly for the first time paint buyer. Amazing Paint fills this gap for an "entry level" program. There are few alternatives in the "entry level" market in terms of price and performance.

Some of Amazing Paint's unique features include Multiple Undos, a powerful tool for people who like to change their mind, the Magic Wand, a selection tool that will select a "filled" area with a single click; the Shape Selector allows the user to make selections with circles, triangles, free form shapes, arcs, and predefined shapes including crosses, balloons, squids and hundreds of others; the Pencil has selectable "lead" sizes from one pixel to as large as 8x8 pixels; Patterns can be rotated, inverted, and can have different ink properties including transparent and overlay. All tools that draw can take advantage of these patterns; Custom Brushes can be made using the brush editor. Brushes can be drawn from scratch or "grabbed" from any document, the Spray Can has adjustable spray size, pattern and spray speed; users can use the brush shapes for Eraser shapes; Text in Amazing Paint can range from 9 point to 999 point sizes. Amazing Paint is both Adobe Type Manager™ and Apple TrueType® compatible. Text can have any pattern applied to the the text or its background.

Other special effects include perspective, rotate, slant and distort. Once an effect is added to an image another effect can be added without have to reselect the area.

Any part of an Amazing Paint document can be printed after it has been selected. This means that the user has the ability to "check out" how something will look without printing the entire document. A document of selection can also be printed to poster or billboard size. These can be from 2x2 pages to almost unlimited in size.

Along with normal saving functions, Amazing Paint includes the ability to save a selected area or a document directly to the Scrapbook or to a MacPaint™ or PICT file.

"I used to teach people how to use SuperPaint and some people had a lot of trouble grasping the program," said John Foster, the Product Manager for Amazing Paint. "It seemed to have too many features. If they started off using another program, like MacBillboard or the original MacPaint, they would catch to how powerful paint programs can be a lot faster. When we designed Amazing Paint, we wanted to make a program easy enough for people who had never used a paint program, yet powerful enough so that "painting professionals" could use it too."

Amazing Paint was developed outside of CE Software by another Des Moines software company, MicroFrontier, Inc. MicroFrontier markets a high end image enhancement program for Macintosh called Enhance™.

For additional information, contact CE Software, Inc., 1854 Fuller Road, P.O. Box 65580, West Des Moines, IA 50265, 515/224-1995.

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New Scanman Software

Logitech Press Release details new features

The latest breakthrough in Logitech Scanman software for the Macintosh provides an improved user interface and a number of further advanced features including a whole A4 page facility.

Version 2.1 — launched in the UK on October 2nd — enables the stitching together of strips of scanned images, so offering distinct advantages in reduced space allocation and ease of use.

The new stitching option makes it simple to scan a complete A4 page without saving each part of the image or leaving the application. It also can be brought into play for multiple scans, the image size only being limited by the available RAM. Pictures can be stitched together by using the mouse.

By using the "arrow" keys on the Macintosh keyboard, this allows the alignment of two parts of an image in one pixel increments. A further calibration option guarantees the perfect overlapping of strips.

Other added features of the Version 2.1 package include —

- Superior control and flexibility during either single or multiple scanning via the new interface.
- The document window now indicates the memory size and the image resolution.
- TIFF compressed format has been added to the save options.
- Enlargement and reduction of the document can be implemented in size or percentage.
- An extra control function takes into account the features of printers prior to preparation and completion of high resolution documents in half tone.

ScanMan for Mac with the new software is now available from all authorised Logitech dealers priced at £345.

However, Version 2.1 is to be made available free of charge to all registered ScanMan users.

Network News

The latest news, tips and gossip from the networks.

Subject: Re: **A IIci nit**
From: Kevin Mitchell @ Datalogics Inc., Chicago
James W. Gish writes: "Apple, pray tell, why did you choose to place the programmer's switch such that if the machine is placed on end as recommended, it is easy to inadvertently reboot the machine by sliding a book across the desk/surface the machine is resting on?"
Isn't it removeable? When I first got my Mac 128, I stuck the programmer switch in the left side, and one day, while tinkering with MacPaint with my left leg up on the desk, I moved my foot and <beep> all my work was gone. Just gotta stay away from it. Why not build a small cover to put over it. Take a small box, cut one end off and tape it to the cabinet. When you want to reset, you poke your finger into the box to reach the switch.
Kevin A. Mitchell
Datalogics, Inc

Subject: Re: **A IIci nit**
From: John DeRosa @ Motorola Inc., Cellular Infrastructure Div., Arlington Heights, IL
Well I had the same complaint about the Plus reset button. I had a series of resets that I swore were the fault of the hardware. What it turned out to be was my Radius FPD bumping the reset button.

Subject: **RAM upgrade makes printer crazy !!??**
From: Jerry L. Miller Question: Why did my printer go crazy after a RAM upgrade? When I rebooted after upgrading my Mac Plus from 2.5 to 4 meg, my Imagewriter II printer went wild. During the boot up process, it would spit out many pages, each with one or two lines of garbage printed. This would happen whether it was a cold start (ie. turning the power on) or a warm start using "restart" under the special menu. I removed super laser spool from my system folder and the problem still occurred. I then re-installed the system (6.0.3) and the printer resources and the problem went away. So, either something was funky in the system or my printer resource suddenly went bad. Why????
Jerry L. Miller
Rosenstiel School of Marine and Atmospheric Science, University of Miami

Subject: Re: **RAM upgrade makes printer crazy !!??**
From: Dhoyt @ University of Minnesota, Academic Computing Services Sounds like the laserwriter driver was choosen by mistake. This happens to me all the time. If it happens again, go into Chooser and pick the Imagewriter icon.
David Paul Hoyt

Subject: Re: **RAM upgrade makes printer crazy !!??**
From: Jerry L. Miller Sorry, perhaps I should have elaborated a bit more in my original description of the problem. Among the first things I did was go into Chooser - what I found was no printers at all to choose from. In fact, I believe the Imagewriter driver is the only one extant on my system. Someone e-mailed saying that I probably had Appletalk turned on while being connected serially to an Imagewriter. Well, I have never used Appletalk and have never had that Mac connected to a Laserwriter so I am pretty sure Appletalk has never enter the picture. Anyway, on the surface of the problem, it would seem that neither of the above could be the culprit. However, I guess either (or even both) could have come into play if something weird happened during/after installation of the SIMMS. Still, it is a bit disconcerting since my first upgrade (from 1 to 2.5 meg) went smooth as silk last year.
Jerry L. Miller

Subject: Re: **PC to SCSI connections?**
From: Dana E. Keil @ UC Berkeley, Dept of Agricultural & Resource Economics
Michael Elphick writes:
"An acquaintance possesses both a Mac SE system (SE/30 with a GCC laser printer) and an Amstrad 286 PC-compatible. His problem is that the laser printer is ONLY provided with a SCSI interface, and he would like to use it with the PC-compatible (which of course has only the usual serial and parallel ports). Is there any solution based on some kind of interface converter, assuming that an appropriate driver can be found (or bought with such a converter)? He would be willing to pay a few (i.e. up to two or three) hundred pounds (or dollars). There are lots of SCSI host adapters for PClones. Adaptec, Seagate, and Western Digital (I think :() all make them. Now software to drive a printer might be a bit more of a problem..."
Oops, I think we're on the wrong track here. I think the SCSI interface on the laser printer would be for attaching a hard drive, wouldn't it, and the printing would actually be done through the AppleTalk connection. If I'm right on that, what you want for connecting your PC to the laser printer is an AppleTalk card such as that made by TOPS, or Apple or a lesser known clone of these. We use TOPS FlashCards and the TOPS/DOS 3.0 software which takes care of sending PostScript output to the printer.
Dana Keil

Subject: **Mac IIci video**
From: Robert L. Wald @ Princeton University, Princeton, New Jersey
Is it better for the IIci to have 2 banks of memory (say 1mb and 4mb) than just 1? I recall reading somewhere that the built in video will tie up the memory while it is working, but if its in 2 banks you can use the other one without

interruption. Also, can you specify which bank (i.e. tell it to use the 1mb, even if the 1mb is the second bank (assuming that you have to have the 4mb in the first bank as on the lower macs))? Also, can the Apple color monitor be used with a future 24 bit card when I get tired of 8 bits? IS there a better monitor for the ci which would (or better anyway)?
Thanks
Rob

Subject: Re: **Mac IIci video**
From: Matthew T. Russotto @ College of Engineering, University of Maryland, College Park
Robert L. Wald) writes:
"Also, can the Apple color monitor be used with a future 24 bit card when I get tired of 8 bits?"
Yes – the 8*24 and 8*24 GC come to mind immediately. Matthew T. Russotto

Subject: Re: **Mac IIci video**
From: Steve Lemke
From Apple Tech Note #176: Macintosh Memory Configurations:
"The IIci has a much-improved RAM interface and allows a great deal more freedom when installing SIMMs. Banks A and B are interchangeable, meaning that when mixing two sizes of RAM, the larger SIMMs do not necessarily have to go in Bank A. In fact, for best performance when using on-board video, Apple recommends that the smaller SIMMs be installed in Bank A. Note, however, that if on-board video is used, then RAM must be present in Bank A."
The IIci requires that SIMMs be 80 ns RAS-access time or faster and the same speed within a row. You can implement the following memory configurations with 256K and 1MB SIMMs:
1 MB using four 256 Kbit SIMMs in Bank A or in Bank B
2 MB using eight 256 Kbit SIMMs in Banks A and B
4 MB using four 1 Mbit SIMMs in Bank A or in Bank B
5 MB using four 256 Kbit SIMMs in Bank A and four 1 Mbit SIMMs in Bank B
5 MB using four 1 MBit SIMMs in BankA and four 256 Kbit SIMMs in Bank A
8 MB using eight 1 Mbit SIMMs in Banks A and B
The 1 MB and 4 MB configurations using only Bank B are not compatible with on-board video, since Bank A must contain memory when using on-board video. The first 5 MB configuration (with 256 Kbit SIMMs in Bank A) is recommended for 5 MB configurations using on-board video. So, basically, you can leave the 256Kbit SIMMs in Bank A, and install your 1MBit SIMMs in Bank B. This will result in better performance.
The Apple color display will work with the Radius DirectColor/GX board in 1, 2, 4, 8, 16, and 24-bit modes. In addition it has on-board acceleration to make 24-bit mode run much quicker, and it supports NTSC output timing. Steve Lemke, Engineering Quality Assurance, Radius Inc., San Jose

Subject: Re: **IIci displays**
From: Steve Lemke
Jeff Mock writes:
"I have a IIci with a radius TPD. I always use the TPD and occasionally use the internal video of the IIci. When I plug in a color monitor and reboot, the internal color display is always display 1 (the one with the menu bar) and the TPD is display two. Is there any way I can make the IIci's internal video be display 2 (no menu bar) and the TPD display 1 (menu bar)?"
Sure! Just go into the control panel (Desk Accessory), find the Monitors icon and click on it, then click and drag the menubar from the color display over to the Radius TPD. This way, the menubar should always be on the TPD, whether or not the color is plugged in. If you want the startup screen (if you have one) and the startup INIT icons to also appear on the TPD, then while holding the option key down, drag the little smiley-Mac icon from the color display over to the TPD. Close the control panel and re-boot, and all should be just fine. Basically, the displays are numbered starting with on-board video and continuing through the slots, left to right. However, through the Monitors control panel device, you can have the menubar appear on any display.
Steve Lemke,
Engineering Quality Assurance,
Radius Inc., San Jose

Subject: **Refilling DeskWriter ink cartridges—a failure.**
From: Robert Ebert @ Xerox Sunnyvale System Software Unit
This is the story of how I failed to re-fill a DeskWriter ink cartridge. I'm telling it in hopes of providing a how-not-to example for others, and perhaps getting some tips in where I went wrong for those who have successfully re-filling the cartridges. I think my first mistake was in trying to refill with a different color ink. In particular, I wanted red. The ink I bought was Schaffer Script ink, which is a nice bright red. (Also comes in green and blue.) The reason red was a bad choice is that the inside of the cartridges appears to be filled with a foam of some sort. This is probably good in that it lets the ink wick into the sprayers and filters out junk, but in my case it was bad because it meant that there was a lot of black residue in the pad. Because of this, the bright red ink came out a sort of dull red color. It wasn't very pretty, but it defintely wasn't black. The procedure I used to refill the cartridge was to drill a small hole in the curved part of the green top and put the ink in that way. I didn't know how to put the ink in. It was slow, but it still didn't take more than 10 minutes to fill the cartridge. While I was filling it, ink was leaking out through the jet holes at a pretty good rate. To stop this, I held the cartridge above the towels for a little while. This didn't stop the flow of ink out the holes. I figure the real cartridge must be sealed with only a very small hole at the top to help keep the ink from leaking out so fast... so I put a piece of tape over the top to close the hole, and this did, eventually, stop the flow of ink out the jet holes. That done, I tried the cartridge. I did get reddish printing for a couple of pages, and it did seem like the ink was about as water-soluable as the original cartridge. After a couple of pages, though, the ink started coming out too fast, or otherwise making drops and leaking, and I ended up with little puddles of ink at the start of each pass of the print head, with no actual printing. Taking the cartridge out and wiping the printing end stopped the flow of ink, but later the same thing started happening again. (Perhaps the ink isn't "thick" enough?) After

a couple more unsuccessful attempts to seal the top tighter or otherwise stop the too-rapid flow of ink, I gave up and dumped the whole mess in the trash, inserting a new (black) cartridge, which worked fine. Even this failed attempt didn't seem cause any harm to the printer. All the ink ended up on the paper, and none in any visbile printer parts. I know this has successfully been done. (In black and green, at least. Did anyone get red to work?) What was causing the ink to flow too fast? When the next cartridge runs out, I'm definitely going to try it again, with a darker ink. For the next attempt, can anyone recommend ink brands or improved re-fill methods? Actually, if HP's waterproof ink is out soon, maybe I won't try the refill. Does anyone (even HP) make cartridges in colors other than black? The fact that the label on the cartridge has a little black dot seems to indicate that there are other options available. (I assume HP has the right ink, since they make the paint jet series.)
Bob

Subject: Re: **Refilling DeskWriter ink cartridges—a failure.**
From: Damian Roskill
I can't really comment on the red ink, but my HP service guy tells me that those refills dry out more quickly than the ink that HP uses. Because of this, my HP guy told me not to use the ink or it would void my warrenty. Any comments on this from netland? The service rep said that the refill ink can ruin the printing mechanism if used repeatedly.
Damian Roskill

Subject: Re: **Refilling DeskWriter ink cartridges—a failure.**
From: Robert Ebert @ Xerox Sunnyvale System Software Unit
Regarding "can ruin the printing mechanism." That's probably true, but then, you THROW THE PRINTING MECHANISM AWAY every time you change cartridges. The ink never touches any part of the printer itself, except possibly the wiper station at the far right. Can anyone comment on the wiper station construction? Even when my failed cartridge was leaking at (relatively) enormous volumes, nothing appeared to happen to the wiper station. I suggest that it must be capable of handling large amouts of ink, since priming the cartridge is supposed to flush a lot of ink through the cartridge. (Also, knowing the way HP builds things, I would suspect that you could pour an entire bottle through the wiper station and not damage it.) So, your service rep is most likely telling you about the damage in order to get you to buy refill cartridges at $18 each instead of just ink at $1.00/refill. HP probably suggest replacing the cartridge each time to keep up their (really amazing) time between failure numbers. That is, if they said you could refill the cartridges, or even sold the ink in bulk, the "printing mechanism" (aka ink cartridge) would eventually fail and people would start to bitch about poor print quality. We know that we can refill it until it starts to go bad, THEN throw it away and replace the "printing mechanism" (for $18.00). Anyway, I got a bunch of email about better ways to fill the cartridges, all of them said I should just use a syringe and squirt the ink through the "air hole" at the top. No one said anything about colored ink, though. What is it, isn't anyone else interested in very-low-volume highlight color printing?
Bob

Subject: Re: **Refilling DeskWriter ink cartridges—a failure.**
From: Robert Minich @ Oklahoma State University
I'm no HP guru (I don't even have a DeskWriter, but I wish I did) but have you considered loading it up with water or a mild solvent and letting it clean itself out a little bit THEN filling it with red ink?
Robert Minich
Oklahoma State University

Subject: Re: **Refilling DeskWriter ink cartridges—a failure.**
From: William C. DenBesten @ Bowling Green State University B.G., Oh.
I created a green cartridge, and have used it for about 500-1000 pages. When I put my green ink in, it started out black, and got lighter as time went by. After about 200 pages or so, it was the color of the ink that I used. I have discovered that you can put about 10ml in at a time. I suspect that the ink that HP uses is marginally thicker than Skrip ink (which both of us used). This causes the weight of the ink in the cartridge to force ink through the closed jets. If we found a mildly thicker ink, it may work better. My solution was to only fill the cartridge about 50% (by weight). I suspect that what happened to you was that the ink that drained out caused damage to the jets. Mine prints fine. I do find that if I don't use the cartridge for about a week, I have to 'prime' the cartridge with a wet kleenex. I use Shaffert Skrip ink, like you do. I used green, and I am going to try blue next. Both appear to have the same consistency, which appears to be about the same as water. I found a individual that is diabetic. I convinced her to give me a syringe, which I intend to use to try and fill my cartridge next time rather than drilling a hole. (BTW, it turns out that syringes are a PRESCRIPTION item in the wonderful state of Ohio. Surpised me. No wonder there are problems with drug users sharing needles.)
William C. DenBesten

Subject: Re: **Refilling DeskWriter ink cartridges—a failure.**
From: George Jefferson @ University of Pennsylvania
Well, my curiosity finally got the best of me. I just had to open the top on one of these things. (with a hammer :-) Sure enough there is a sponge inside, with suprisingly little residual ink remaining. The ink is water soluable right? I rinsed the sponge under warm water and it is as clean as new. I think if you tried to flush the cartridge without opening it you would never get the sponge to dry properly. Also, the vent hole is just a hole. I dont think that having a bigger hole would hurt anything. If your ink runs too fast, you need a more viscous ink.
George

Subject: **Stereo sounds (Help)??**
From: cjh36367@uxa.cso.uiuc.edu
I'm a new programmer and trying to produce stereo on a Mac IIcx. I have digitized sounds from MacRecorder and am trying to play them in stereo but I can't allocate a left and right channel and I haven't been able to play on a stereo channel. If anyone can help I would be appreciative.
Chris

Subject: Re: **Stereo sounds (Help)??**
From: Matthew T. Russotto @ College of Engineering, University of Maryland, College Park
This is one of the more blatant bits of fraud Apple has pulled– the sound driver does NOT support stereo. You need to get MACE from APDA to use stereo. If you have the developer disks, it is on them.

Subject: **Macsbug: what version for IIci?**
From: Ken Lindahl @ University of California, Berkeley
Hi, Can someone tell me what version of Macsbug I should be using with my Mac IIci running system 6.0.5? And what I need to do to get it?
Ken Lindahl Advanced Technology Planning,
Information Systems and Technology
University of California at Berkeley

Subject: Re: **Macsbug**
From: David Shayer @ Apple Computer Inc., Cupertino, CA
You can run MacsBug 6.1 on a Mac IIci. You can order it from APDA. On a Mac IIfx, you need MacsBug 6.2. Macsbug 6.2a10 is the latest version.
I'm not sure where you get it from, it may be on Applelink, or MacDTS might be able to tell you where to get it from.
David

Subject: **Split window**
From: Pete Resnick @ University of Illinois at Urbana
I am beginning a programming project in which I want a split text window: that is, I want a window with two scrollable regions (two thumb controls) into which text will be typed.
Just for your info, the text will be added to each region such that you will not be able to edit the lines above you, though you will be able to copy from them and see them by scrolling up. The only editing you will be able to do is typing characters, return, backspace, and pasting characters. What would be the simplist way to implement this?
The Window Manager only provides one thumb control and no obvious way to implement two independent scrolling regions. There is also nothing obvious in TE, and I do not want most of TE's editing features. Any suggestions appreciated.
Pete Resnick
System manager
Cognitive Science Group,
Beckman Institute, UIUC

Subject: Re: **Split window**
From: Steve Christensen @ Apple Computer Inc., Cupertino, CA
The Window Manager just provides the windowing support. What you do within a window is up to you.
To implement a split window, you can just draw a line in the middle of the window and put a scrollbar in each section. Then clicking on a particular scrollbar will scroll that section up or down.
If you wanted to use TextEdit to handle all the text manipulation, you could also setup a couple of TextEdit records– one for each section– and do the copies and pastes into the currently active window section.
Steve Christensen
Apple Computer, Inc.

Subject: **Inside Mac VI**
From: Wayne L. Jebian @ Columbia University
Does anyone out there know where I can get a copy of Inside Mac VI (the new one). Is Apple selling them? Thanks a lot!

Subject: Re: **Inside Mac VI**
From: David Shayer @ Apple Computer Inc., Cupertino, CA
The preliminary version of IM V6 should be available from APDA. It was handed out to all registered developers at the May developers conference.
David

Subject: **Tuning MacinTalk**
From: rcook@eagle.wesleyan. edu
The other day I dug up my old copy of Lightspeed Pascal 1.0 and found the interface and object code for the MacinTalk library.
I would like to get my Macintosh to sing, but to do that, I will need to know how the pitch numbers you feed to MacinTalk relate to the frequency of the sound that comes out of the speaker. At least I would need to know what two pitch numbers sound an octave apart when played.
If anyone knows how to tune MacinTalk I would appreciate any information you have on the subject. Thanks.
Randall Cook

Subject: **Re: Tuning MacinTalk**
\From: Eric Pepke @ Florida State University
I played around with this a bit. (One of the things I traditionally do on new computers is get them to "sing" 'Let's Make the Water Turn Black', whether "singing" involves just playing the notes and printing the words or actually singing the words.)
I came to the conclusion that, even in robotic mode, there were too many variations in pitch to make it sound good.
Eric Pepke
Supercomputer Computations Research Institute
Florida State University
Tallahassee, FL

Subject: **Re: Tuning MacinTalk**
From: David Phillip Oster @ Whole Earth 'Lectronic Link, Sausalito, CA
I've spent some time on the problem of teaching my Macintosh to sing, and the best I've come up with is to have it go through a few quick run throughs and have it calibrate itself by successive refinement.
Once it knows how long to hold a syllable at a given pitch to stay on the beat, it can save the correction data away, so when you ask it to sing, it will immediately do the right thing.
All '2001' fans want a Macintalk version of "Daisy".
David Phillip Oster

Info-Mac digests consist of submissions by individuals on the academic computer networks. Submission and distribution of these digests is by network, moderated by volunteers at Stanford University.
Usenet is a loosely-coupled network of co-operating academic and commercial computer systems. It is a non-profit network whose primary aim is the sharing of technical information and the spreading of research results.
Delphi is a commercial time-sharing and bulletin board system. The Delphi Digests are made available thanks to Jeffery Shulman of Rutgers University.

Games Reviews

A brief look at Welltris and an attempt to review Moriarty's Revenge.

Welltris, the sequel to Tetris. Reviewed by Dale Thatcher.

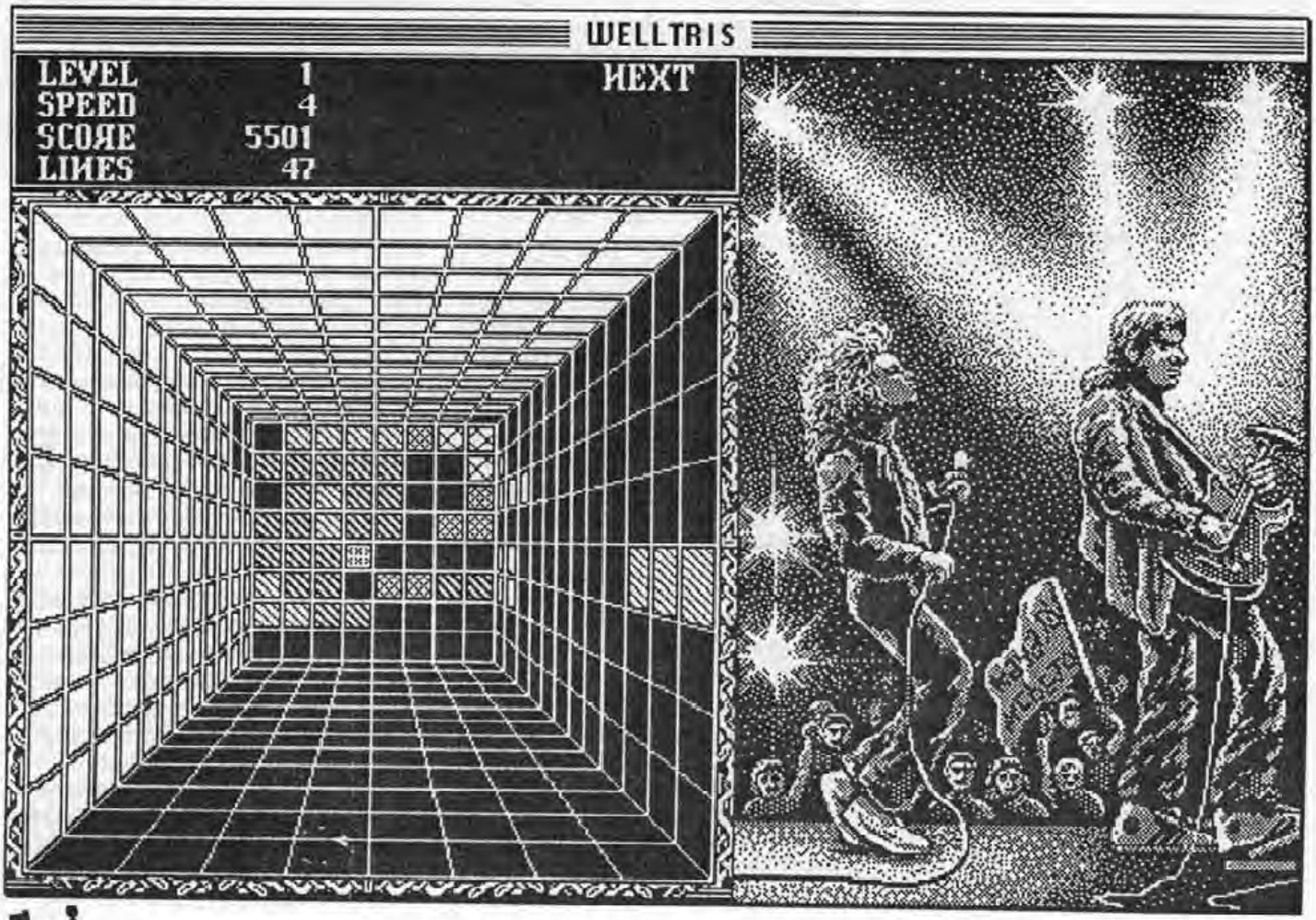
Welltris is similar to Tetris in many ways, you use the same blocks, you have to make lines of blocks.

The difference between the two is the fact that Tetris is played in a two dimensional area where as Welltris is played as if you were looking down a well. Blocks of pieces fall down the sides of the well and slide onto the bottom surface of the well. The idea of the game is to make a line of blocks; when you do this the line disappears to have room to make more lines.

The game operates at three different skill levels and five different speed levels. The levels of skill are different by the variety of combinations of shapes the programme can give you while you are playing. e.g. First level gives you shapes made of two-four blocks, Second level gives you shapes made of four blocks and third level gives you shapes made of two-five blocks. The levels of speed range from extremely slow to so fast you cannot tell the difference between dropping the block (letting the block just drop to the bottom of the well) and guiding it down. An added feature of Welltris is that you can drop object's down round the corners of the well, to form new shapes; Shapes can even be made to overlap themselves forming other shapes in the process.

There is a small protection to the programme in that it will not let you use it until you have entered some information in the manual.

Music and sound effects in Welltris are extremely good and the pictures are of a very high quality. One comment I have about Welltris is that while you are playing the music stops after a short while and does not start up again until you go up to the next speed level. In my opinion Welltris is a good game for people who like a challenge.



An attempt to review "Moriarty's Revenge" by Norah Arnold and Peter Kemp

When "Moriarty's Revenge" came in for review I gave it first of all to teenager Dale Thatcher, together with Welltris. Dale immediately reported that Moriarty's Revenge would not work on his Mac IIci.
I then tried it on my Mac IIx and MacPlus and could not get it to work properly on either of them. I then asked Peter Kemp to review it and his letter, which I have printed here, documents his attempt.
There is always the possibility that we have accidentally been sent a dud copy so we will be asking for a new one and will report progress in a future issue.
Norah Arnold

Dear Norah,
"Moriarty's Revenge"
Thanks for sending me the game. Unfortunately I can't review it. Although I can start a game and play through to the end of an episode, it then crashes. Since the overall game depends on stringing twenty of these episodes together, there is little point in trying to review it further.
Since I was running from the hard disk, I decided to follow the instructions in the manual and boot/run from the original program disk. This had no effect - the program still crashes, but it shows that my system installed DA's can't be to blame.
I'm using a MacPlus. The only deviation from standard is that it has 2.5Mb of RAM installed. That might be why the program crashes, but it's a perfectly standard configuration and the program should cope with it. The error code is "25" which means, according to my notes, that there is a memory problem - either out of memory or too fragmented. Since this is obviously nonsensical (given that the program is less than 300K in size) it means the application is making illegal or inappropriate calls.
I found another problem when I tried to delete a player character from the program disk without unlocking the disk first - the program crashed into memory. This is dreadful. There should be a warning to the player rather than crashing straight into memory. I shudder to think how badly other error conditions have been trapped.
I could report on what I've managed to play up to the time the game crashes, but I don't think it's sensible to do so.
I do think it would be sensible to advise people that this game won't play on either a IIci or a Plus with more than one megabyte. It might be appropriate to contact the suppliers and ask for their comments - they may wish to provide a rebuttal, contact the publisher or even provide a version that works as expected!
Best wishes,
Peter Kemp

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4)Omnis 2 Program (database - 5.25" disks) **£50**
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N.B: (a) Will consider reasonable offers for all the above bought together
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'Phone Gordon (after 6.30 pm Mon-Fri) [illegible]

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(To sell/swap/part exchange - make me an offer!)

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Book Reviews

Three new books reviewed by John Arnold.

Designing Cards and Drivers for the Macintosh Family
By Apple Computer Inc.
2nd Edition
Addison-Wesley 1990: ISBN 0-201-52404-X at £23.95

This is a new edition of the book written by Roy Smith which dealt with the Macintosh II and the Macintosh SE. The new book now deals with the following machines:- Macintosh SE, SE/30, II, IIx, IIcx, IIi, IIfx, and the Macintosh Portable. It is in the same format as other Addison-Wesley technical Apple publications, and as one has now come to expect it is well designed and printed, and is a credit to the Apple desktop publishing system used to create it.

I had a job to discover the author of this new edition,who by the way is Rolly Reed, as the only place the name appears is on the last page.

The book is about 450 pages long and consists of three parts plus three appendices.

The first part is concerned with NuBus Expansion Interface, beginning with block diagrams of each of the Macintosh computers and some details of the NuBus interface architecture, moving through in subsequent chapters with some necessary details of NuBus eg. signals and timing, to an electrical design guide for expansion cards, memory addressing, Firmware structure with sample code for the Macintosh II Video Card ROM firmware. There then follows details of Driver designs again with a sample Video driver code listing in MPW assembly language, NuBus design examples, with this first part finishing with a description of the Macintosh II Video Card.

The second part is concerned with the Processor-Direct Expansion Interface.This part starts with an overview of the Macintosh PDS computers, the SE, SE/30 and the Portable, giving the corresponding block diagrams, with subsequent chapters giving details for card design for both the 68000 and 68030 including the dimensions required by the card.There then follows a short chapter in which is described a simple disc controller card.

The third part deals with Application Specific Expansion Interfaces.There are two chapters in this section, the first giving the relevant information for the design of ROM, RAM, and modem expansion cards for the Portable, and the second the cache memory expansion capability of the IIci.

Appendix A gives details of electromagnetic interference, heat dissipation and product safety standards.

Appendix B gives PAL - implemented logic listings for the NuBus Test Card, which was described in an earlier chapter.

Appendix C gives PAL listings for the SCSI NuBus Test Card.

The manual concludes with seven foldout pages of design guides etc.

A highly technical manual, and like others in the same series absolutely invaluable for those requiring the relevant information.

Macintosh Programming Primer: Inside the Toolbox Using THINK C
Dave Mark and Cartwright Reed
Addison-Wesley 1989: ISBN 0-201-15662-8 at £20.65

This book is a tutorial on Macintosh programming specifically using Symantec's THINK C Version 3.0. It consists of 532 pages and covers after an introduction, the details of the software tools necessary to work through the book, the Window manager, QuickDraw, Events, Menus, Dialogs; Notification, Scrap, Print, File, and Sound managers. There is a chapter on ResEdit, and a final chapter on reference materials and sources useful to programmers. The Notification manager is not documented in Inside Macintosh and so the details of the NMRec data structure used by the manager given here may be new to some programmers.

The chapters in general have an initial discussion of the particular topic, including details of the Toolbox calls, before developing a small application using some of the calls. This book emphasises the use of resources for most of the applications given and complete details of what is required to set up the resources, including illustrations of the ResEdit windows as they should look, is provided. The THINK C Project window is shown, and the complete code for the application is given. The code is then "walked through" with comments given where appropriate. The example applications are reasonably small so as not to be confusing to those using the book to learn C programming on the Macintosh.

There are six appendices, the last deals with Hypercard XCMD's using THINK C.

I find that the book is easy to read, well printed and satisfies it's objective of being a tutorial for Macintosh programmers. The only criticism I have is that the program listings appear three times, firstly complete, next with explanatory comments in the text, and finally in one of the appendices where the complete listing is given again. This occupies some sixty pages and I would have preferred to have seen those pages used for new example applications. Interestingly the authors state that they are writing a sequel to cover topics missing in this volume such as color QuickDraw, INITs etc. I am looking forward to this being published.

For anyone trying to learn both C, in particular THINK C, and the multitude of Toolbox routines I would strongly recommend this book.

Inside PostScript
Frank Merritt Braswell
Systems of Merritt & Peachpit Press: 1989. ISBN 0-938151-10-X at £33.50

For PostScript programmers this book provides the code and structure of Adobe's PostScript interpreter, material which hasn't appeared in the other PostScript books currently obtainable. It is not specifically LaserWriter orientated, in fact the interpreter used is that of QMS-PS800 Version 38.0 Revision 0. However most of the code given will apply to the PostScript interpreter in the LaserWriter, indeed there is a small section dealing specifically with AppleTalk. There are three levels to the PostScript interpreter. The first is the documented level, for this the procedures and operators are adequately described in the available PostScript books such as the Adobe Blue, Red, and Green books. The second level is the undocumented level,. that is nothing is available in print about this level, that is until this book appeared, because this level is what Braswell's book aims to document. The third level is the Proprietary level, and what is contained within that level remains known only to Adobe.

Braswell has taken the code from the interpreter and fully commented every line, with the proviso that he did not have access to Adobe's internal documentation and so what he prints may not be 100% accurate. Some of the areas covered are Error Handling, the Interactive Mode group, and the Printer Control group. The author's intentions are that the code when studied should enable PostScript programmers to write their own code more efficiently, and that it will enable better PostScript drivers for applications to be written. It is not a book for beginners in PostScript, but will prove to be a very useful reference text for those who come into the category of 'advanced' PostScript programmers.

The book consists of about 320 pages and at a price of £33.50 would seem to be rather expensive, however it does contain material which as far as I know is not obtainable elsewhere.

P.S. Don't forget thst you can order books through Shop2000!

Letraset News

Press Releases from Letraset

Adobe Illustrator 3.0 was officially launched on September 7 at AppleWorld, Stockley Park. It still has precise illustration facilities but now also includes extensive text handling and automatic graphing capabilities. Illustrator 3 is due to ship on October 15. The price is being held at £550 and all users who purchased Illustrator 88 after July 1 will be entitled to free upgrades; for other users, the cost to upgrade will be £99.

Issue four of Creative Edge, due in October, will carry an editorial feature on Illustrator 3. It will also include a voucher for 10% off the retail price of the program. This offer is only for a limited period.

Letraset will shortly be launching SHAPES, an add-on module for ColorStudio. Shapes adds outline drawing and anti-aliased rendering tools to the paintbox capabilities of ColorStudio. Shapes will be bundled with ColorStudio once available and will be sent out free of charge to existing registered users until the end of the year.

Letraset also announcenew prices effective from Monday 1 October, as follows:

	WAS	NOW
ColorStudio	£1495	£995
DesignStudio	£795	£595
FontStudio	£595	£595
(now with 6 FREE LetraFonts)		
LetraStudio	£500	£495
(plus 4 FREE LetraFonts)		
LetraFonts	£75	£60
ImageStudio	£550	£295
StandOut	£395	£295
RSG 4.5a	£550	£295

Plus these StudioLine bundles:

- BLACK and WHITE £1,700
  ImageStudio, LetraStudio, FontStudio and DesignStudio
- COLOUR £2,500
  ColorStudio, LetraStudio, FontStudio and DesignStudio

Letraset will be attending the National Graphic Design Exhibition (30 October - 2 November) and the Mac User Show (7 - 10 November). If you would like more information on the shows or complimentary tickets, contact Karen Odam on 071-928-7551.

Acme Support

A press release from Joel Levine V.P. of Marketing for SyQuest Technology states a suit has been filed, by SyQuest Technology, against Microtech International Inc. of East Haven for non-payment of $850,000.

Acme Computer-Distribution Co. (a distributor for SyQuest products and an ex-distributor for Microtech products) had supplied a large quantity of the Microtech R4S (which uses the SyQuest product in question) to the UK Macintosh market. However recent returns of faulty equipment from UK customers to Acme had languished in Acme's service department awaiting spares from Microtech. Information and delays by Microtech were to blame — they had even stopped replying to phone calls and facsimile messages from Acme.

Following the SyQuest press release Acme Computer-Distribution Co. have chosen to support existing UK customers with Microtech R45's, by replacing faulty units under warranty with the new *Euro*^{555}, a UK-manufactured drive using the same SyQuest mechanism but with a vastly superior linear (generates zero RFI) power supply unit and, of course, full UK-based warranty.

Users experiencing problems may contact Acme Computer-Distribution Co. directly on 0246 221394.

Sensible Grammar 1.6

This useful piece of software has recently been upgraded

A Review by Geoff Wood

Sensible Grammar has been updated. The new version 1.6 has several advantages over the earlier version 1.5.2 which was reviewed in the October 1989 issue of Apple 2000.

The first advantage is the use of colour. Although it isn't really necessary for a grammar checking program, colour does make quite a difference. The eye more easily distinguishes the various features of the **Phrase Status** window when they are picked out in yellow and blue as well as black and white. I use green as the highlight colour for selected text and this helps even more to attract attention to the important parts of the window contents.

A second advantage is that the new version works with MacWrite II. (Other programs it works with are listed in the review in the October 1989 issue.)

A third advantage is that the program can check the contents of the clipboard. This means that you can use it with MultiFinder to check all or part of a currently open file in your word processor. (As you might expect, Sensible Grammar will not allow you to check a file that is currently open in your word processor.) There is also an option to display the clipboard: the earlier version did not have this feature.

A new feature is the **Reference Window** which appears at the foot of the screen displaying an explanation of the type of error currently shown in the **Phrase Status** window, together with an example of the error. You can choose to suppress this window if you prefer.

There's also a new command to Select All the text in the **Phrase Status** window. This is easier than having to drag through it with the mouse.

But the main advantage of the new version is that it has more phrases built into some of the **Phrase Files.** For example, the file of **Cliche Expressions** has 138 phrases instead of only 98. The new phrases include such examples as *all in a day's work* and *other side of the coin.*

The **Overly Formal Phrases** file has been increased from 585 to 707 phrases including such examples as *abbreviate* (shorten) and *vista* (view).

The **Redundant Phrases** file has risen from 385 to 441 phrases including such examples as *big in size* (big) and *past history* (history).

You might think that these extra facilities would slow the program down but the difference is imperceptible. I tried both the old and the new versions of the program on a file of 5,000 words (the review of the earlier version). They took exactly the same time (just over three minutes with my IIci) with the Auto-mark and Auto-Log features switched on.

However, there was one minor snag. When I examined the files of errors compiled by the two programs, I found that the new version had listed 176 errors but had stopped compiling the list at the 252nd sentence because it had come up against a limit of 32k for the size of the file. The earlier version listed 171 errors in the full 287 sentences of the file.

Up to the 252nd sentence the earlier version listed 144 errors, so the later version listed 32 more errors in the same amount of text. Most of these 'errors' were listed because of a new feature that draws attention to sentences with passive verbs and suggests the use of the active verb.

Although the new version listed more errors than the old version, it also ignored several 'errors' which the earlier version had listed but which were not true errors. The old version said that it was incorrect to have two spaces before the next sentence after a sentence enclosed in parentheses; the new version accepted two spaces as correct.

The old version also suggested a singular verb in the sentence 'Near the top of the window are five icons.' because it regarded the word window as the subject of the verb. The new version accepted the sentence as correct.

The old version suggested 'it could was' rather than 'it could be' in a sentence which incorporated the phrase 'it could be irritating'. Again, the new version accepted the sentence as correct.

The 32k file limit also applied to the list of homophones (words like *two* and *too* that sound the same but have different meanings). The new version listed 139 homophones but stopped at the 160th sentence with a message 'You have reached a window limit of 32k of text' at the end of the homophone file. However, the old version logged the same number of homophones and stopped listing after in the same sentence with a message 'Not enough memory to log this text' at the end of the file.

In practice, the file limit of 32k is not a serious drawback. Many people do not need to compile lists of errors or homophones. If that case, the program can cope with large files. Those who do need the lists can split a large file into smaller files before using the program.

Another big difference between versions 1.5.2 and 1.6 is that the new program is much larger. It occupies 449k instead of 282k. However, I noticed that the new version does not have the files of adjectives, adverbs, nouns and prepositions which the old version had. Together these accounted for 30k. Presumably, these lists are built into the new program. This does not account for the big difference in size but the new version incorporates a better understanding of grammar because it obviates the errors (described above) of the earlier version.

When I first tried to run the new version on the 5,000 word file, it stopped part way through with an error message that there was not enough memory to continue (though my Mac has 4Mb of RAM). I used the Get Info panel to change the application memory size from 512k to 1024k and found that this was sufficient to overcome the problem.

If you're thinking of buying Sensible Grammar, make sure that you get the latest version. If you have an older version, ask your supplier about an upgrade or enquire direct to Sensible Software Inc.

Pom's

Mac and Apple II magazine

Enjoy understanding how your Apple works

Pom's is **the** French information and programming magazine for all Apple computers, from **Apple //** to **Macintosh.**

French developers are creating programs on Apple //, GS and Macintosh every two months for Pom's ; you will find them explained in each issue, and on the accompanying disk.

According to your own interest, you will learn how to program an Init, a CDA/NDA or simply how to use it.
Pom's includes a disk (3.5" or 5.25") containing source code, but also presents : fonts, applications, CDAs/NDAs, Inits, anti-virus, shareware, freeware...

Pom's gives solutions in graphics, communication, word processing, calculation... and also entertainment and games. A lot of software is available, as well as fonts, patches, TimeOuts for AppleWorks, Public Domain...

Toutes les informations sur Apple // et Macintosh en direct de France

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HyperPort™ Info

Concentrix Introduces HyperPort™ Danny Goodman's new HC utility.

Boston, Massachussetts (August 8, 1990) – Concentrix Technology, Inc. announced the release of HyperPort, a new HyperCard text transfer utility. Designed by HyperCard pioneer, Danny Goodman, HyperPort eliminates the need of writing HyperTalk scripts to transfer information between any text file and any HyperCard stack. HyperPort allows users to combine multiple database fields into single HyperCard fields or to export sections of single HyperCard fields into multiple database fields.

"I know I'm not alone," Goodman said, "in that I've written many import or export scripts for people who wanted to transfer an existing database to HyperCard or vice versa. The myriad of possibilities made writing a universal script impossible. Instead, I designed HyperPort to analyze the data and let it essentially write the scripts for making the transfer." In the process, the user works solely with real, sample data from a text file or HyperCard stack. Clicking and dragging information objects replaces HyperTalk programming.

HyperPort transfers information along the following paths:

HyperCard stacks <–> Tab-delimited database files
HyperCard stacks <–> Comma-delimited database files
HyperCard stacks <–> Word processing text files
HyperCard stacks <–> Microsoft Word mail merge files
HyperCard stack <–> Text File <–> HyperCard stack

Transfers are not limited to field-by-field database files. Longer word processing text, such as that used in training material or long documents, may be transferred into HyperCard as big blocks. All the user must do is insert a unique character to serve as a divider between chunks of text to transfer to each card.

Additionally, HyperPort will even build a stack from scratch around data imported from a text file. Once the data is transferred, the user may modify the stack's field structure and graphic display using HyperCard's internal authoring tools.

How Importing Works

From the HyperPort menu screen, the user clicks the New Import Template button. A standard file dialog box prompts the user to choose the name of the HyperCard stack into which data is to be imported. If the stack has more than one background, the user may view each of the backgrounds to select the one to be the target.

HyperPort then copies the background layout into the HyperPort stack, and creates an import template from that background. While building the template, HyperPort analyzes the field structure, and draws dotted rectangle placeholders in the background fields of that layout. Long lines may have more than one placeholder with a separating character placeholder in between; multiple-line fields (other than scrolling fields) have the placeholders appear on each line. A floating palette of menu commands appears on the screen

At this point, the user chooses Load Sample Data from the palette menu. After choosing the tab-delimited, comma-delimited, or word processing text file from a standard file dialog box, the user watches as HyperPort reads the first record of the file, and creates draggable information objects for each field of the first record. The information objects contain the actual data from the first record. The user may select Next Source Record or Previous Source Record from the menu to bring a representative record into view.

By dragging the information objects to the placeholders (the objects "snap to" the nearest placeholder), the user specifies where data from the text file is to be imported into the HyperCard stack. Unused fields from the text file will be ignored in the transfer. Separator characters are also added by clicking and dragging similar objects (e.g., placing a comma and space between City and State fields on the same line of a HyperCard field).

Once the layout is set to the user's liking, a click of the Import menu item triggers the actual import action. Importing continues until the entire text file is transferred or until the mouse button is pressed to stop the transfer. The import template in HyperPort remains in the stack until the user deletes it. Therefore, if a transfer from a text file to a particular stack is a common occurrence, you may leave the template intact for the next time.

How Exporting Works

Clicking the New Export Template button on the HyperPort main screen displays a standard file dialog from which the user selects a HyperCard stack from which information is to be extracted. If the stack has more than one background, the user may view each of the backgrounds to select the one to be the source.

HyperPort then copies the background layout into the HyperPort stack, and creates an export template from that background, including field data from the first card of that background. A floating palette menu appears with a list of all commands. In case the first card of the background does not contain representative data, the user may choose Data from Next Card or Data from Previous Card to see information from other cards.

At this point, the user simply selects sample data in various

fields to indicate what data is to be exported as a single field. Upon releasing the mouse button after making the selection, the user sees a dialog box, which displays the possible HyperCard designations for the selection. Depending on the type of data in the field and the amount of text selected, HyperCard designations may range from the entire field to lines, words, items, or character ranges of the field. For example, if you select the second line of a multiple-line field called "Name and Address," the choices include "line 2 of field 'Name and Address'" as well as four choices of word and character ranges within that field. HyperPort also recognizes when text might be a City, State, and ZIP or City, Province, and Postal Code entry, and offers those choices as well. All the user needs to do with this dialog is click the radio button choice of HyperCard designation and type a name for the field when it is exported to the text file. HyperPort then draws a named box on the screen atop the sample text in the field.

Once the information objects are named, the user may elect to alter the export order of the fields in the background. Then, a click of the Export menu item starts the export process. Exports to a tab-delimited, comma-delimited, and word processing text file are offered as choices. HyperPort writes the field names as the first record to the text file, making it possible to use a comma-delimited file as a Microsoft Word mail merge data file.

"It takes longer to explain than to actually do it," noted Goodman. "The key to simplicity here is that you work entirely with real information—information with which you are familiar. You don't have to know a HyperCard button from a field to transfer thousands of records in either direction. I believe that direct manipulation of information objects is at the forefront of user interface technology, and it makes using this program a lot of fun."

Support for HyperCard 1.2 and 2.0

Included on the HyperPort disk are versions of HyperPort and tutorial files optimized for HyperCard 1.2 and 2.0. The HyperCard 2.0 version takes advantage of built in floating palette windows and custom menus.

HyperPort requires any Macintosh from the Plus on up, HyperCard 1.2 or 2.0, and a System version compatible with the version of HyperCard the user runs. The suggested retail price of HyperPort in the United States is $79.95. HyperPort is available directly from Concentrix Technology or from Heizer Software (800-888-7667). Registered owners will receive upgrade bulletins regarding future versions of HyperPort, which will include built-in translators for popular database and word processing file formats. HyperPort is available now, and is available during Macworld Expo at Heizer Software's booth, 5520 World Trade Center.

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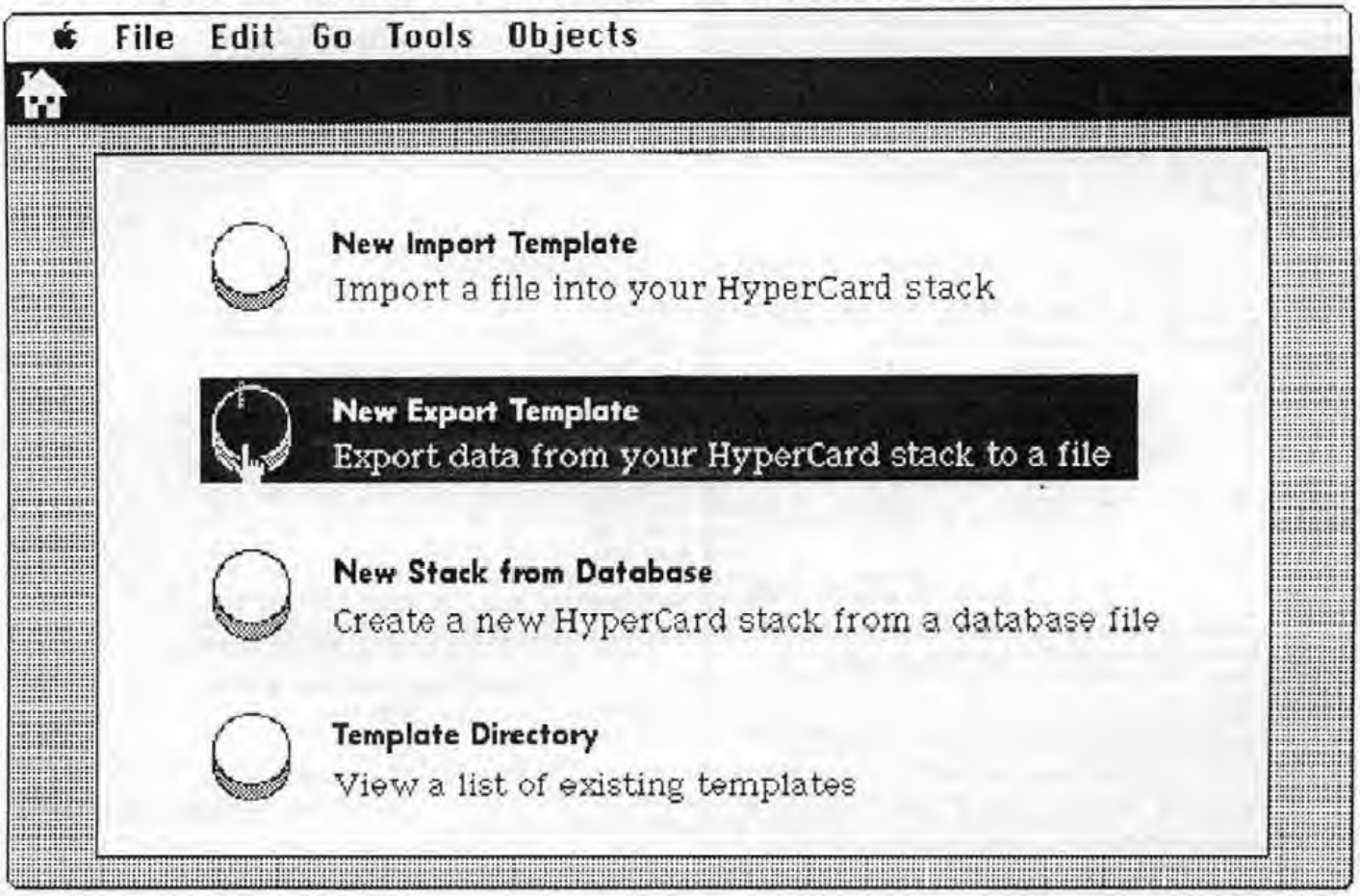

HyperPort™ menu screen.

The Mysteries of Memory Revealed

By Peter Corless, Computerware Technical Support (U.S.A.)

"I bought a new forty megabyte Mac yesterday! I really love using HyperCard and the word processor I got with it."

"Sounds great, but forty megabytes?!? No way. You must be talking about the size of the hard disk. How much RAM does it have?"

"I don't know. It has a SuperDrive. Doesn't that keep almost one-and-a-half megs in it?"

"No, that's storage space again. But that does means that you have to have at least a 256K ROM."

"What? I didn't get a CD-ROM drive..."

"Which also means that you have to have at least a Mac SE or better, and that also means you got to have at least a meg of RAM."

"I don't understand. Maybe I should go back to my old Selectric..."

"If you do, I'd be interested in buying your Mac."

Ever have a conversation like that? Although the Macintosh is easy to use, many people are confused by some of its nuts-and-bolts terminology. Two of the most misunderstood concepts are "memory" and "storage."

Memory is the place where the computer puts information it is currently using. "Storage" is the place where it puts information that it doesn't need all the time. Programs and system software are stored in memory so that there is little or no delay between when you ask the computer to do something and when it does it. Storage is slower but in general can hold much more information. Both memory and storage are measured in bits and bytes. A bit is a single electronic signal that is either set to "1" (on) or "0" (off). Eight bits combined make up a byte. The usual system of measuring bytes is in groups of 1,024 bytes, called kilobytes, or in groups of 1,048,576 bytes, called megabytes.

The Macintosh Desktop

Imagine a desk in your office. In it, you may have very large file drawers (storage), and the rest of your desktop for work space (memory). It would be inefficient to put files from last year all over your desktop. Instead, you would file away all but the most current files into drawers and cabinets, and keep current papers on your desktop. To increase your desktop or memory you would install more SIMMS. To increase your storage space, you would use the storage devices listed at the end of this article, such as hard drives or CD ROM.

The rate at which you access information differs greatly between memory and storage. Memory is usually accessed by the Mac at speeds measured in nanoseconds (ns), or billionths of a second, whereas storage devices are usually accessed at speeds measured in milliseconds (ms), or thousandths of a second. Applying these access speeds to the desktop analogy, it would take you about five seconds to grab the latest report from your desk, flip open to the first page, and read the title but about 300 days to get the same information dug up out of the company archives!

RAM vs. ROM

Memory in the Macintosh comes in two forms: RAM and ROM. RAM stands for "Random Access Memory". When your Macintosh is operating, the term "memory" is usually applied to the amount of RAM it has installed. RAM can, as its name implies, grab any bit of information stored in it at any time rather than having to search through data serially (in order). Additionally, RAM can change the information it

Macintosh Model	Base RAM	ROM Size	RAM Installation	RAM Upgrade Paths
Mac 128K	128 kb	64 kb	Soldered MacPlus Upgrade**	
Mac 512K	512 kb	64 kb	Soldered MacPlus Upgrade or Dove MacSnap**	
Mac 512KE	512kb	128kb	Soldered MacPlus Upgrade or Dove MacSnap**	
Mac Plus	1 mb	128 kb	4 SIMM Slots (2x2)*	"1, 2, 2.5, 4 mb"
Mac SE	1 mb	256 kb	4 SIMM Slots (2x2)*	"1, 2, 2.5, 4 mb"
Mac II	1 mb	256 kb	8 SIMM Slots (2x4)*	"1, 2, 4, 5, 8 mbΔ"
Mac IIx	1 mb	256 kb	8 SIMM Slots (2x4)*	"1, 2, 4, 5, 8 mbΔ"
Mac SE/30	1 mb	256 kb	8 SIMM Slots (2x4)*	"1, 2, 4, 5, 8 mbΔ"
Mac IIcx	1 mb	256 kb	8 SIMM Slots (2x4)*	"1, 2, 4, 5, 8 mbΔ"
Mac IIci	1 mb	512 kb	8 SIMM Slots (2x4)*	"1, 2, 4, 5, 8 mbΔ"
Mac Portable	1 mb	256 kb	Soldered; Direct slot(s)†	"1, 2, Special†"
Mac IIfx	4 mb	512 kb	8 SIMM Slots (2x4)*ΔΔ	"4, 8mbΔΔ"

* Plus and SE have two banks of two SIMM slots; other SIMM-equipped Macs have two banks of four SIMM slots.
* SIMM banks must be filled completely.
** Early Macs can be upgraded to use SIMMs by installing the Mac Plus logic board from Apple (if still available)
"** Dove MacSnap upgrades for 512K = 524 (1mb RAM), 548 (2mb RAM)"
"** Dove MacSnap upgrades for 512KE = 524E (1mb RAM), 548E (2mb RAM)"
† Mac Portable has 1mb RAM soldered to motherboard.
"† RAM Expansion slot can use 1mb SRAM upgrade from Apple, or 2-4mb SRAM upgrade from Third party"
† PSI makes 2-8mb upgrades that use the Portable's direct slot (not RAM expansion slot); compatible with Apple upgrade Software (from Sun Remarketing) includes patches for 128K ROM compatibility
"Δ New 4mb SIMMS change upgrade path to following: 1, 2, 4, 5, 8,16, 17, 20, 32 mb; need System 7.0 or A/UX"
Δ Connectix' Maxima allows user to access up to 14mb RAM; rest of RAM (over 14mb) can be used as a RAM disk.
Δ Early Mac II/IIx need PAL chips on 4mb SIMMs or IIx ROM upgrade
ΔΔ The Mac IIfx uses 64-pin DRAM SIMMs that are NOT compatible with other Macintosh computers.

stores very quickly. For instance, at one point you could have a word processing application open, and later move to your spreadsheet; the instructions for the word processor are flushed from RAM, and the spreadsheet instructions are moved in.

Even though RAM sounds pretty simple, there are several kinds. DRAM, pronounced D-RAM (Dynamic RAM), takes information from storage and holds it as long as the machine is on. When you turn the computer off, poof, your DRAM loses any information it held. When you turn your machine back on, it takes a while to reload information back into the RAM from hard disk or floppy storage. That's why you have to wait a while and watch the smiling Mac during boot-up.

The original Macs (128K and 512K RAM models) used DRAM that was soldered into the mother board which couldn't easily be replaced or expanded. Macintoshes since then (except for the Mac Portable) use DRAM mounted on SIMMs (Single In-line Memory Modules) which are small circuit boards with DRAM chips mounted on them. That feature makes it easy to change the amount of RAM in your Mac. With more RAM, you can use Multifinder and have access to more applications at a time. SIMMs have come down drastically in price in the last year and are currently as low as they've ever been. The Mac Portable uses special RAM, called SRAM (Static RAM), which draws very little power and gives the Portable its 12-hour battery life. The Portable's RAM is soldered in, like it is in the original Macintoshes, but Apple provided a special expansion slot in the rear for RAM upgrades.

Read Only Memory

The other kind of memory, called ROM or "Read Only Memory," cannot be changed. The instructions are burned into the chip that they are written on, and can only be changed by changing the chip. The kind of information you would find on a ROM chip are the low-level instructions that all Macintoshes use. ROM size has grown enormously since the original Macintosh in 1984 and allows more sophisticated instructions to be stored in the computer itself. ROMs in the original Macintosh models were socketed so the chips could be upgraded, but in recent machines, such as the SE/30, the IIcx, IIci and IIfx, ROMs were installed on SIMMs for easier installation and upgrade.

Storage Just so you don't get swamped with too many new concepts, let's just outline the basic features of storage devices. Usually, they come in the form of magnetic or optical media. Storage devices have in common the fact that they take longer to access than RAM or ROM and are usually much more cost-effective and practical for long-term storage of data. The types of storage devices have grown enormously since the early days of floppy-only Macs. Now, there are all sorts of drive mechanisms: floppy drives of different sizes and capacities, hard drives, removable drives, cartridge drives, tape backups (both digital and analog), CD-ROMs, WORMs, erasable opticals, and laser disks. Like the difference between RAM and ROM, some media types, like CD-ROMs ("Compact Disk-Read Only Memory") and laser disks cannot be changed once information has been written to them. Most others can be read from and written to freely, allowing you to change what you have stored on it.

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Getting a Bite on System 7

By Keith Redfield,

ComputerWare Technical Support

System 7, Apple's long awaited system upgrade, has been delayed —again. It's now expected to ship sometime in 1991, but "don't hold your proverbial breath," cautions MacWEEK's Dennis Klatzkin (June 5). "What's more, no one...can assure us that all the new gadgets in System 7 will work and work well."

The good news is you don't have to wait until 1991 for most of the much anticipated, yet unproven, innovations. Almost all System 7's features are available in a utility or application — now. In many cases, these programs have lower system requirements than System 7, are very low-priced, and add terrific value to your Mac.

Virtual Memory - Giving you More Than You've Got

Virtual memory enables your computer to function as if it has more memory than it really does. It enables the computer to use hard disk space as temporary storage for information in the computer's main memory (RAM) by "swapping" information into and out of "real" memory to increase the amount of "virtual" RAM available.

My Mac II, for example, has only 5Mb, yet it thinks it has up to 14Mb of usable application memory because I use VIRTUAL 2.0, a software add-on from Connectix Corporation. VIRTUAL provides the same benefits as physical RAM at a fraction of the cost. In addition it gives a Mac up to six megabytes more memory than the maximum amount of RAM previously available (up to 16Mb).

Virtual memory requires at least a 68020 processor (i.e. Mac II and above), 2Mb of real memory, hard drive space for 'swapping', and page mode memory management functionality. This functionality is built into all 68030-based Macs; for a standard Mac II, a Motorola MC6885 1 Paged Memory Management Unit (PMMU) is needed. VIRTUAL is available in versions with and without a PMMU.

Smooth Out The Jaggies

TrueType, a new font technology in System 7, allows you to enlarge fonts without the screen 'jaggies'. It generates outline fonts that are scalable, and they can be re-sized without causing a loss of clarity or resolution. Normal Mac screen fonts get 'jaggy' when you try to enlarge them because the Mac scales the font by doubling the number of pixels that make up the font.

Adobe Type Manager (ATM) brought this technology to the Mac last Autumn. With ATM, the outline of a font is mathematically scaled to the proper size before being displayed. For PostScript-quality printing ATM also works on non-PostScript printers such as the Hewlett-Packard DeskWriter and the ImageWriter II.

"Hot Links"—InterApplication Communications

An integral component of System 7 is InterApplication Communications (IAC), the ability of one software program to update data from another. With IAC, applications from different vendors can share information in much the same way that programs such as MS Excel can "warm link" information from a spreadsheet to a chart. Hot links means no more manual cutting and pasting of information between applications when the data changes.

The next best thing to Hot Links is Partner from Salient Software. It lets users of Quark XPress, PageMaker, MacWrite II and MS Word instantly access the capabilities of several different graphics programs. For example, when you double-click on an EPS graphic from within PageMaker, Adobe Illustrator's tools will become available. Partner is a tremendous boon to desktop publishers.

Finder Enhancements

System 7 will change the way INIT's and CDEV's (Control Panel Devices) are handled and allow you to make almost any application a DA (desk accessory) by dragging it into a special folder in the System Folder. Although there isn't anything quite like that now, a couple of products come close.

ICON-IT!, from Tactic, allows you to create custom icons that represent files, applications, keyboard macros, or even DA's so you can instantly access any of the selected icons. It can be used in conjunction with a keyboard macro program like QuicKeys from CE Software for a really powerful combination. SuitCase II from Fifth Generation is a utility that changes the fonts and DA's that you have available without having to use the laborious Font DA mover.

Find File Functions

System 7 will include a faster and better "Find File". ON Location, from On Technology, is several times faster than "Find File", plus it has many other features, including letting you view and copy text in the file it 'finds' without launching the application. ON Location also indexes all of your disks available even if they are not mounted on your system. This is particularly useful to those of you with removable cartridge drives and multiple cartridges, because it allows you to search for files without having to mount the cartridges.

File Sharing

System 7 will also include "Personal AppleShare", which will allow you to make information on your Mac accessible to other Macs on an AppleTalk network (although not a full blown network file system). Currently, there are a number of products that are similar to Personal AppleShare such as TOPS. Designed for small networks, TOPS is easy to use and works with Macs, IBM PC's, and Sun workstations.

Should You Wait?

That's up to you. The feeling is that most of the products available now will continue to be upgraded and provide better value than System 7. All the products mentioned above are currently available.

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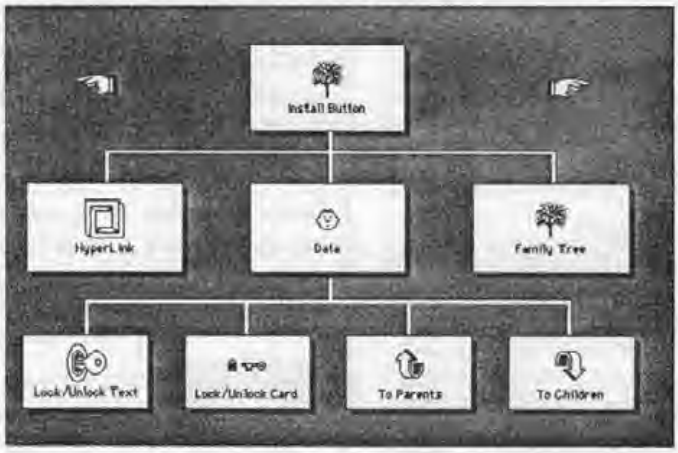
PM4 ShortCuts
This Desk Accessory is by Mark Teranishi and Paul Sorrick and has a shareware fee of $10.
PM4 ShortCuts is a desk accessory to be used in conjunction with PageMaker 4.0 for the Macintosh. It contains a list of all of PageMaker's keyboard shortcuts, as well as some undocumented features, and can be pulled down from the Apple menu within PageMaker. PM4 ShortCuts may be installed with the Font/DA Mover™ or with a utility such as SuitCase II™ or Master Juggler™.
When you open PM4 ShortCuts, you will be in the help screen. There are nine other screens of information that you can quickly access by clicking on the appropriate button at the bottom of the help screen.



Varityper FontConflicts™ Desk Accessory
This Varityper desk accessory is the fourth in a series of "freeware" productivity tools for users of Apple® Macintosh® computers.
Varityper FontConflicts allows you to determine in advance what conflicts, if any, will result when outputting a job prepared on a system other than the one on which it is being output. This can save substantial amounts of system operation time and consumable supplies.
Installation Varityper Font Conflicts can be installed into the System file with Font/DA Mover (vers. 3.8 or later). The DA can also be installed using Suitcase™ II or other suitable font/DA managers.

McSink Version 7.0A
As most of you probably know, McSink is a "little brother" to a commercial program called Vantage which is published and distributed by Preferred Publishers.
McSink can now use Vantage's External commands, which are special commands which can be installed into the External menu. Vantage can support up to 32 External commands, and they can be permanently installed into Vantage so that they're always available. McSink, however, only supports one External command, and it must be loaded with the Load VCMD command in the External menu every time you open McSink. This seems to be a reasonable compromise between keeping a sharp distinction between Vantage and McSink, yet still allowing McSink user's to get a feeling for what External commands are and what they can do.

Genealogy Stack
The Genealogy Stack by Kevin Merritt is made up of two types of cards. The first type are Personal Data cards. These are where you enter a specific ancestor's data, such as birth death etc. The second type are Family Tree or Relations cards. These work like traditional family trees.

Disk Tools II
Disk Tools II is a DA giving info on hard disks and floppies. It allows you to create new folders from inside applications and also to delete, copy, find, move and rename files.

Mountem
Mountem is an FKey used to mount and unmount SCSI volumes.

Disk Basher
Disk Basher is an application that measures hard disk performance.

Stuffit Classic™ Installer will install on your Mac Stuffit Classic application and its files.

Mac Library

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Disinfectant Version 2.1. August 18, 1990.
Version 2.1 recognizes the new MDEF B and CDEF viruses.
Version 2.1 corrects errors in the version 2.0 INIT which caused it to crash with some items of software. With version 2.0. the SuperClock menu clock would sometimes freeze, and some screen savers did not work properly. This is a problem with SuperClock and the screen savers. Version 2.1 contains special code to avoid this problem.

Apple® Macintosh™ II Video Card utility
This unsupported utility is a "Monitors CDEV Extension" which may be of assistance in obtaining interlaced, RS170-compatible video output signals from a Macintosh II-class machine equipped with the Macintosh II Video Card. This is not intended for the unsophisticated user. If you don't know how to make a video cable, this software is not for you!

Fontographer 3.1 Type 1 Fixer
Some type 1 fonts created by Fontographer 3.1 do not work at all with ATM™. The next version of Fontographer will fix this problem, however, until it is released you should use this utility to fix broken fonts.

Boomerang
Boomerang is a Control Panel Device (CDEV) for manipulating file access and dialogs.

theFONDler 2.0
theFONDler started out as an alternative to Apple's Font/DA Mover utility for users of "harmonized" font systems. As it progresses it is becoming more of a screen font management utility in that other users of Postscript fonts, in general, can benefit from information provided by theFONDler about their fonts.

Disk 404 Utilities 23

ChooserUser
ChooserUser 1.0b5 is a freeware INIT/CDEV combination that lets you control who can change the user name in the Chooser desk accessory. This program will be particularly useful to public Macintosh labs found in university settings.

LEDclock
LEDclock is a desk accessory that displays the time in half inch tall digits. Although LEDclock will work on any Mac, it is meant for use on displays that support at least 16 grays or 256 colours. The digits are slightly oblique, just like a real alarm clock. To prevent them from looking jagged, they are antialiased. No antialiasing is possible on a black and white display.

Loodle
Loodle is a utility for making labels for 3.5 inch disks.

Time Server 1.0.1
The Time Server system consists of three parts. The Time Server is a startup document that will send the current time on the system it is running on out to all Time Clients that request the correct time. The Time CLient is a startup INIT located within the Time Chooser document. During boot time it requests the correct time from the selected Time Server. The Time Chooser document allows you to select a Time Server.

Gatekeeper Aid
Gatekeeper Aid version 1.0.2 of 5-Aug-90 by Chris Johnson Gatekeeper Aid - Startup document and document "What's Become of Gatekeeper?"

Medici
Medici is a version of Michelangelo, an Old Style display face with lots of character. Medici is compatible with Adobe Type Manager™ allowing users to see the characters rendered on-screen, and to enjoy better quality from non-postscript output devices.

TiffShow1.03
TiffShow is an application for manipulating TIFF files.

ScreenMaster
The ScreenMaster control panel device was produced to satisfy a growing need of Macintosh II owners. As more and more software programs became inoperational under the Macintosh II, it became clear that there had to be some way discovered to get these programs to work. ScreenMaster is just one of the many ways to get these programs to work.

DisKeeper v 1.0.1
DisKeeper lists all files on volumes, allowing you to set categories of files to ignore, etc.

Adobe Vols DA
Adobe Vols by Name 1.1 - in the left column is a list of the fonts from the Adobe Library of PostScript typefaces, volumes 1 to 134. The right column lists the corresponding Adobe volume numbers. Adobe Vols by Number 1.1 - this does the same thing in reverse, find the number and the other column tells you the font.

Hedges DA
Hedges DA presents a maze game which is guaranteed to relieve even the greatest depths of boredom and replace it by the heights of frustration.

Business Plan 1.2.1
Business Plan is a HyperCard Stack which lets you contro; your finanaces You have the ability to set up your own categories (as amny as you wish) and place each cheque or expenditure into one of the categories you define.
It can compile and print reports of expenditure between any two dates. It will also compare any two reports and prepare a yearly report. Of couse it uses 'check' instead of 'cheque.'

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Midlands

CAMBRIDGE APPLE USERS GROUP

CONTACT - || Ian Archibald Tel : [illegible]
Mac Richard Boyd Tel : [illegible]
VENUE - Impington Village College, New Rd, Impington, Histon.
MEETS - Fortnightly during term time with both Mac and Apple II on deck each night.

EAST MIDLANDS MAC USER GROUP

CONTACT - David Nicholson Cole Tel : [illegible]
VENUE - School of Architecture, Univ. of Nottingham
MEETS - 1st and 3rd Tuesday of the month at 8 pm

GATEWAY COMPUTER CLUB

CONTACT - Vern Tel : [illegible]
Robin Boyd Tel : [illegible]
VENUE - Bob Hope Recreation Centre, R.A.F Mildenhall
MEETS - AMS conference room, Mildenhall base. Normally at weekends, check with Robin
NOTE : Although the venue is on a service base it is not in a security restricted area so the club is open to interested parties.

LEICESTER GROUP

CONTACT - Bob Bown Tel : [illegible]
VENUE - Shakespeare Pub, Braunstone Lane, Leicester
MEETS - 7.30pm to 10.0pm on the first Wednesday of every month

LIVERPOOL GROUP

CONTACT - Irene Flaxman Tel : [illegible]
VENUE - Check with Irene
MEETS - Second Monday of every month.

MIDAPPLE

CONTACT - Dave Ward Tel : [illegible]
VENUE - I.T.E.C., Tildasley Street, West Bromwich, West Midlands
MEETS - 7.00pm on the second Friday of every month

THE MIDLAND MAC GROUP

CONTACT - Ivan Knezovich Tel : [illegible]
VENUE - Spring Grove House, West Midland Safari Park, Bewdley, Worcestershire.
MEETS - 8.00pm on the first Tuesday of every month

WEST MIDLANDS AMATEUR COMPUTER CLUB

CONTACT - John Tracey Tel : [illegible]
VENUE - Hill Crest School, Simms Lane, Netherton, Near Dudley.
MEETS - 7.00pm on the second and fourth Thursdays of each month.
NOTE - - This is not an Apple user club, it is a general interest club which welcomes users of all machines. There are currently two Apple user members.

North

BURNLEY APPLE USER GROUP

CONTACT - Rod Turnough Tel : [illegible]
VENUE - Michelin Sports Centre
MEETS - 2nd Wednesday of each month

CREW COMPUTER USER CLUB

CONTACT - Paul Edmonds
[illegible]
VENUE - Christ Church Hall, Crewe
MEETS - Fortnightly, Fridays, 7.30pm to 10.00pm
NOTE: this is a general interest group with Apple users among its members

HARROGATE AREA

CONTACT - Peter Sutton Tel : [illegible]
No active organised group in this area but there are a number of keen Apple users in contact with each other.

THE NORTH EAST APPLE COMPUTER CLUB

CONTACT - Philip Dixon Tel : [illegible]
VENUE - Apple Centre North East, Ponteland Road, Ponteland, Newcastle-on-Tyne
MEETS - First Wednesday of every month

THE NORTH WEST APPLE COMPUTER CLUB

CONTACT - Ken Dawson Tel: [illegible]
VENUE - The Coachman's, on the A49, about 1 mile south of the junction with the M62
MEETS - Second Thursday of every month

THE NORTH WEST APPLE USERS GROUP

CONTACT - Max Parrot
Tel : [illegible], Extn [illegible] daytime
Tel : [illegible] evenings
VENUE -
MEETS - Ring Max

Scotland

EDINBURGH GROUP

CONTACT - Ricky Pollock Tel : [illegible]
VENUE -
MEETS - Meetings monthly, check with Ricky

Postal

APPLE II PROGRAMMERS CLUB

CONTACT - Philip Dixon TEL : [illegible]
VENUE - None established yet
MEETS - No meetings yet, has operated through postal newsletter published quarterly
NOTE : Philip started the club some time ago based on a membership fee of £1.00 to cover the cost of newsletters. Original intention was to concentrate on BASIC and Assembler programming.

Other Groups

ORPINGTON COMPUTER CLUB

CONTACT - Terry Wheeler Tel : [illegible]
VENUE - G.E.A. Hall, Woodhurst Avenue, Petworth
MEETS - Contact Terry

DONCASTER SOUTH YORKSHIRE

CONTACT - Colin Withington Tel : [illegible]
VENUE -
MEETS - Contact Colin

LEEDS

CONTACT - Bob Miller Tel : [illegible]
- T Veluppillai Tel - [illegible]
VENUE -
MEETS - Contact Bob

LIVERPOOL UNIVERSITY MAC GROUP

CONTACT - Alan Boyle Tel : [illegible]
VENUE - Liverpool University, Surface Science Res. Cent.
MEETS - Tuseday lunch times

If you want to start a group, find out about a group that might be near you, please write or contact John Lee the Local Group Organiser at the PO Box in Liverpool, or 'phone John Lee on [illegible].

If you are a local group organiser and have not been in touch with John Lee, please contact John with details of your group, or any changes there may be to the above details.

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'Phone Eric .....

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'Phone Roger Millea .....

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